

THE DEPARTMENT OF THE ARMY
AND
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
AND
THE CALIFORNIA DEPARTMENT OF HEALTH SERVICES
AND
THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SDMS # 31322

IN THE MATTER OF:

The U.S. Department of the Army
Sharpe Army Depot
California

)
)
) FEDERAL FACILITY
) AGREEMENT UNDER
) CERCLA SECTION 120
)

) DOCKET NO. 89-17

Based on the information available to the Parties on the effective date of this FEDERAL FACILITY AGREEMENT (Agreement), and without trial or adjudication of any issues of fact or law, the Parties agree as follows:

CERCLA SECTION 120 INTERAGENCY AGREEMENT FOR SHARPE ARMY DEPOT

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1. DEFINITIONS

1.0 Except as noted below or otherwise explicitly stated, the definitions provided in CERCLA/SARA and the NCP shall control the meaning of the terms used in this Agreement.

1.1 "Administrator" shall mean the Administrator of the United States Environmental Protection Agency.

1.2 "Agreement" shall refer to this document and shall include the Attachments to this document. The Attachments shall be appended to and made an integral and enforceable part of this document.

1.3 "ARARs" shall mean "legally applicable" or "relevant and appropriate" standards, requirements, criteria, or limitations as those terms are used in CERCLA/SARA Section 121(d)(2), 42 U.S.C. 9621(d)(2), and the NCP.

1.4 "CERCLA" or "CERCLA/SARA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499.

1.5 "Days" shall mean calendar days, unless business days are specified. Any document or written statement of dispute that under the terms of this Agreement would be due on a Saturday, Sunday, or holiday shall be due on the following business day.

1.6 "DOHS" shall mean the State of California Department of Health Services, its successors and assigns, and its duly authorized representatives, which may include its employees, agents, and contractors, as necessary.

1.7 "EPA" shall mean the United States Environmental Protection Agency, its successors and assigns, and its duly authorized representatives, which may include its employees, agents, and contractors, as necessary. EPA Region IX is included within this definition.

1.8 "Feasibility Study" or "FS" shall mean the study(ies) (including any study for an operable unit) which fully evaluates and develops remedial action alternatives to prevent or mitigate the migration or the release of hazardous substances, pollutants, or contaminants at and from the Site.

1.9 "Force Majeure" shall mean any event arising from causes beyond the control of a Party that causes a delay in or prevents the performance of any obligation under this Agreement, including, but not limited to, acts of God; fire; war; insurrection; civil disturbance; explosion; unanticipated breakage or accident to machinery, equipment, or lines of pipe despite reasonably diligent maintenance; adverse weather conditions that could not be reasonably anticipated; unusual delay in transportation; restraint by court order or order of public authority; inability to obtain, at reasonable cost and after exercise of reasonable diligence, any necessary authorizations, approvals, permits, or licenses due to action or inaction of any governmental agency or authority other than SHAD; delays caused by compliance with applicable statutes or regulations governing contracting, procurement, or acquisition procedures, despite the exercise of reasonable diligence; and insufficient availability of appropriated funds, provided that SHAD shall have made timely request for such funds as part of the budgetary process as set forth in Section 34, Funding. Force majeure shall also include any strike or other labor dispute, whether or not within the control of the

Parties affected thereby. Force majeure shall not include increased costs or expenses of response actions, whether or not anticipated at the time such response actions were initiated.

1.10 "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300, and any amendment thereof.

1.11 "Operable Unit" or "OU" shall mean any discrete remedial action which is consistent with the final remedial action and which is taken to prevent or minimize the release of hazardous substances, pollutants, or contaminants so that they do not migrate or endanger public health, welfare, or the environment.

1.12 "Parties" are EPA, DOHS, RWQCB, and SHAD.

1.13 "RCRA" shall mean the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq., as amended by the Hazardous and Solid Waste Amendments of 1984, Pub. L. 98-616.

1.14 "Receipt" shall mean, for purposes of when a document or notice is received, on the day received by the Party's mail facility.

1.15 "Remedial Investigation" or "RI" shall mean the investigation(s) (including the investigation for any operable unit) conducted to fully determine the nature and extent of the release or threat of release of hazardous substances, pollutants, or contaminants and to gather necessary data to support the Feasibility Study and the Baseline Risk Assessment.

1.16 "RWQCB" shall mean the State of California Regional Water Quality Control Board, Central Valley Region, its successors and assigns, and its duly authorized representatives, which may include its employees, agents,

and contractors, as necessary.

1.17 "Sections" refers to the various sections of this Agreement except when used in the context of referring to a statute.

1.18 "SHAD" shall mean Sharpe Army Depot, Department of the Army, its successors and assigns, and its duly authorized representatives, which may include its employees, agents, and contractors, as necessary.

1.19 "Sharpe Army Depot" or "the Depot" shall, except for purposes of Subsection 1.18 above, mean the Sharpe Army Depot located in San Joaquin County, California, including all areas identified in Attachment 1. This definition is for the purpose of describing a geographical area and not a political entity.

1.20 "Site" shall include Sharpe Army Depot and any other areas contaminated by the migration of a hazardous substance, pollutant, or contaminant from the Depot. The term shall have the same meaning as "Facility" as defined by Section 109(9) of CERCLA/SARA, 42 U.S.C. 9601(9).

1.21 "Timetables and deadlines" shall refer to the specific schedules for performance of described tasks and those tasks to be implemented pursuant to this Agreement. Timetables and deadlines may be contained in attachments to this Agreement as well as documents prepared pursuant to this Agreement.

1.22 "Transmit" shall mean the following: any document to be transmitted by a certain date will be considered as transmitted on time if mailed by that date by certified mail return receipt requested, registered mail, or next day mail. Any other means of transmission must arrive on the due date to be considered as timely delivered.

2. PARTIES BOUND

2.1 This Agreement shall apply to and be binding upon EPA, the State of California through DOHS and RWQCB, and SHAD, and upon all subsequent owners, operators, and lessees of the Depot. SHAD will notify the other Parties of the identity and assigned tasks of each of its contractors performing work under this Agreement upon their selection. This Section shall not be construed as an agreement to indemnify any person. SHAD shall provide copies of this Agreement to all contractors performing any work called for by this Agreement.

2.2 No change in ownership of the Depot shall in any way alter the status of responsibility of the Parties under this Agreement. Should SHAD transfer ownership of any or all of the Depot property, the notice and remedial action responsibilities under Section 120(h) of CERCLA/SARA, 42 U.S.C. 9620(h), apply. In addition, SHAD shall include notice of this Agreement in any document transferring ownership or operation of the Depot to any subsequent owner and/or operator of any portion of the Depot and shall notify EPA, DOHS, and RWQCB of any such sale or transfer at least ninety (90) days prior to such sale or transfer. Nothing in this Agreement shall interfere with the discretion of SHAD, EPA, DOHS, and RWQCB to enter into an agreement with another potential responsible party where SHAD, EPA, DOHS, and RWQCB determine that remedial investigation, feasibility study, or remedial action activities will be done properly at or in the vicinity of the Depot by such other party under the provisions of Section 120(e)(6) of CERCLA/SARA, 42 U.S.C. 9620(e)(6); provided, however, that any such actions on the Depot

itself must have SHAD's prior approval.

3. JURISDICTION

3.0 Each Party is entering into this Agreement pursuant to the following authorities:

3.1 EPA enters into those portions of this Agreement that relate to the remedial investigation/feasibility study (RI/FS) pursuant to Section 120(e)(1) of CERCLA, 42 U.S.C. 9620(e)(1), as amended by SARA, Pub. L. 99-499 and Sections 6001, 3008(h), and 3004(u) and (v) of RCRA, 42 U.S.C. 6961, 6928(h), and 6924(u) and (v), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), and Executive Order 12580;

3.2 EPA enters into those portions of this Agreement that relate to remedial actions pursuant to Section 120(e)(2) of CERCLA/SARA, Sections 6001, 3008(h), and 3004(u) and (v) of RCRA, and Executive Order 12580;

3.3 SHAD enters into those portions of this Agreement that relate to the RI/FS pursuant to Section 120(e)(1) of CERCLA, Sections 6001, 3008(h), and 3004(u) and (v) of RCRA, Executive Order 12580, the National Environmental Policy Act, 42 U.S.C. 4321, and the Defense Environmental Restoration Program (DERP), 10 U.S.C. 2701 et seq.;

3.4 SHAD enters into those portions of this Agreement that relate to remedial actions pursuant to Section 120(e)(2) of CERCLA/SARA, Sections 6001, 3004(u), and 3008(h) of RCRA, Executive Order 12580, and the DERP.

3.5 DOHS and RWQCB enter into this Agreement pursuant to Sections 120 and 121 of CERCLA/SARA, 42 U.S.C. 9620 and 9621, California Health & Safety Code

Division 20, Chapters 6.5 and 6.8, and Division 7 of the California Water Code.

3.6 DOHS is the designated single state agency, in accordance with California Government Code Section 12018, and the lead agency for the State of California. DOHS is signing for the State of California; RWQCB is signing for itself.

4. STATEMENT OF FACTS AND DETERMINATIONS

4.0 For purposes of this Agreement, the following constitutes a summary of the facts and determinations upon which this Agreement is based. None of the facts related herein shall be considered admissions by any Party. This Section shall not be used by any person related or unrelated to this Agreement for purposes other than determining the basis of this Agreement.

4.1 Facts:

4.1.1 The Department of the Army owns and operates Sharpe Army Depot, adjacent to the northern edge of the community of Lathrop, approximately seven miles south of the City of Stockton, California.

4.1.2 Surface water drainage is primarily to the South San Joaquin Irrigation District drainage canal which is a tributary to French Camp Slough and thence to the San Joaquin River and the San Joaquin/Sacramento Delta. The first water table occurs at six to ten feet beneath the Depot. Groundwater flow is generally to the northwest.

4.1.3 The beneficial uses of the Delta, San Joaquin River, and French Camp Slough include domestic, industrial, and agricultural supply; recreation; esthetic enjoyment; and preservation and enhancement of fish,

wildlife, and other aquatic resources. The beneficial uses of groundwater in this area are domestic, municipal, industrial, and agricultural supply.

4.1.4 The Department of the Army (previously the War Department) has operated the Depot as a general supply, storage, and maintenance facility since 1941. SHAD uses, or has used at the Depot, various chlorinated solvents, paint, thinner, pesticides, and organic solvents for facility and supplies maintenance.

4.1.5 SHAD presently discharges up to 0.38 million gallons per day of secondarily treated domestic waste water (governed by NPDES permit No. 78-214) to the South San Joaquin Irrigation District drainage canal east of the Depot. In the past, SHAD has also discharged treated industrial wastes to the drainage canal and disposed of liquids, sludges, and solids, including chlorinated volatile organics, to land on the Depot.

4.1.6 Since 1980, SHAD has been conducting an environmental assessment which has included the installation of in excess of 160 wells on and around the Depot at various depths, over 1800 soil gas samples, soil sampling, geophysical investigations, and well sampling and analysis. Sample results from these wells show that the shallow aquifer in both the southern and northern portions of the Depot is contaminated with chlorinated volatile organics, primarily trichloroethylene (TCE) up to 1245 parts per billion (ppb) (in the southern portion of the Depot) and arsenic up to 720 ppb (in the southern portion of the Depot). Pollutants exceeding state action levels extend to depths of over 140 feet on the Depot. Monitoring wells off-Depot have been installed beginning in 1985, and results show that TCE contamination downgradient of the Depot extends to a depth of 140 feet at

concentrations of 100-200 ppb.

4.1.7 The aquifer of concern in the vicinity of the Depot is a sole source drinking water supply.

4.1.8 SHAD agreed to a time schedule issued by the RWQCB, dated May 10, 1984, to complete plume definition and initiate cleanup of polluted ground water. This time schedule was subsequently revised at the request of SHAD on October 30, 1984, November 9, 1984, and February 28, 1985, due to difficulty in obtaining off-Depot real property access rights.

4.1.9 RWQCB issued a Monitoring and Technical Reporting Program for SHAD on May 22, 1985, revised on November 27, 1985, requiring monitoring for plume definition and public health protection.

4.1.10 RWQCB adopted Cleanup and Abatement Order No. 86-038 on January 24, 1986, requiring SHAD to fully define the pollution emanating from the Depot by August 15, 1987, and to propose a remedial action by December 15, 1987.

4.1.11 On April 26, 1985, DOHS issued a draft RCRA Hazardous Waste Storage Permit, which, pursuant to RCRA, included requirements for corrective action for release of hazardous waste. The permit was modified and released for public comment on April 30, 1986. The permit was ultimately issued by the State under its own authority rather than as a RCRA permit.

4.1.12 Sharpe Army Depot was included on the National Priorities List (NPL) on July 21, 1987, because of groundwater contamination of a sole source drinking water supply by hazardous substances.

4.2 Determinations:

4.2.1 Sharpe Army Depot constitutes a facility within the meaning of

CERCLA/SARA Section 101(9), 42 U.S.C. 9601(9), and RCRA Section 3004, 42 U.S.C. 6924, and is a "Site" within the meaning of California Health and Safety Code Section 25356.

4.2.2 "Hazardous substances" as defined in Section 101(14) of CERCLA/SARA, 42 U.S.C. 9601(14), were deposited, stored, disposed of, placed, or otherwise came to be located at the Depot.

4.2.3 "Hazardous wastes" as defined in Section 25316 of the California Health and Safety Code were released at the Depot, and discharged into "waters of the state", as that term is defined by Section 13050 of the California Water Code.

4.2.4 There have been releases and there continue to be releases and threatened releases of hazardous substances into the environment within the meaning of CERCLA/SARA Sections 101(22), 104, 106, and 107, 42 U.S.C. 9601(22), 9604, 9606, and 9607, and California Health and Safety Code Section 25320.

4.2.5 With respect to releases described in Subsection 4.2.3 above, SHAD is a person within the meaning of CERCLA/SARA Section 107, 42 U.S.C. 9607, California Health and Safety Code Section 25319, and California Water Code Section 13050.

4.2.6 The Department of the Army is the owner of Sharpe Army Depot.

4.2.7 Sharpe Army Depot constitutes a Federal Facility within the meaning of Section 120 of CERCLA/SARA, 42 U.S.C. 9620.

4.2.8 SHAD has commenced two (2) removal actions on the Site: the South Balloon Treatment System and the North Balloon Treatment System. No additional removal actions are anticipated prior to the Record of Decision (ROD).

4.2.9 RWQCB, in adopting Clean Up and Abatement Order #86-038, has determined that the discharge of wastes to waters of the state has created or threatens to create a condition of nuisance and pollution.

4.2.10 The provisions of this Agreement are reasonable and necessary to protect the public health or welfare or the environment.

4.2.11 SHAD is the lead agency for accomplishing the RI/FS in accordance with Section 120(e)(1) of CERCLA/SARA, 42 U.S.C. 9620(e)(1).

5. PURPOSE

5.1 The general purposes of this Agreement are to:

5.1.1 Ensure that the environmental impacts associated with past and present activities at the Site are thoroughly investigated and appropriate remedial action taken as necessary to protect the public health, welfare, and the environment;

5.1.2 Establish a procedural framework and schedule for developing, implementing, and monitoring appropriate response actions at the Site in accordance with CERCLA/SARA, the NCP, Superfund guidance and policy, RCRA, and RCRA guidance and policy; and,

5.1.3 Facilitate cooperation, exchange of information, and participation of the Parties in such actions.

5.2 Specifically, the purposes of this Agreement are to:

5.2.1 Identify Operable Units (OUs) which are appropriate at the Site prior to the implementation of final remedial action(s) for the Site. OUs shall be identified and proposed to the Parties as early as possible prior to formal proposal of an OU pursuant to CERCLA/SARA. This process is

designed to promote cooperation among the Parties in identifying OU alternatives prior to selection of final OUs.

5.2.2 Establish requirements for the performance of an RI to determine fully the nature and extent of the threat to the public health or welfare or the environment caused by the release and threatened release of hazardous substances, pollutants, or contaminants at the Site and to establish requirements for the performance of an FS for the Site to identify, evaluate, and select alternatives for the appropriate remedial action(s) to prevent, mitigate, or abate the release or threatened release of hazardous substances, pollutants, or contaminants at the Site in accordance with CERCLA/SARA.

5.2.3 Identify the nature, objective, and schedule of response actions to be taken at the Site. Response actions at the Site shall attain that degree of cleanup of hazardous substances, pollutants, or contaminants mandated by CERCLA/SARA.

5.2.4 Implement the selected final remedial action(s) in accordance with CERCLA and meet the requirements of Section 120(e)(2) of CERCLA, 42 U.S.C. 9620(e)(2), for an interagency agreement among the Parties.

5.2.5 Assure compliance, through this Agreement, with RCRA and other federal and state hazardous waste laws and regulations for matters covered herein.

5.2.6 Coordinate response actions at the Site with mission and support activities at the Depot.

5.2.7 Expedite the cleanup process to the extent consistent with protection of human health and the environment.

6. SCOPE OF AGREEMENT

6.1 Under this Agreement SHAD agrees it shall:

6.1.1 Conduct Removal Actions in accordance with Section 7;

6.1.2 Conduct a Remedial Investigation(s) (RI) of the Site (including an RI for any OU) in accordance with Section 8;

6.1.3 Conduct a Feasibility Study(ies) (FS) of the Site (including an FS for any OU) in accordance with Section 9, incorporating the results of the Remedial Investigations related to the Site; and,

6.1.4 Develop remedial action alternatives for the Site and implement those remedial actions, including long term remedial actions, selected by the Administrator for the Site in accordance with Section 10.

6.2 These matters are set forth in more detail in Sections 7, 8, 9, and 10. In the event of any inconsistency between the Sections of this Agreement and the Attachments to this Agreement, the Sections shall govern unless duly modified pursuant to this Agreement. EPA, DOHS, and RWQCB agree to provide SHAD with guidance and timely response to requests for guidance to assist SHAD in the performance of the requirements under this Agreement.

7. REMOVAL ACTIONS

7.1 Any removal actions conducted on the Site shall be conducted in a manner consistent with CERCLA, the NCP, and 10 U.S.C. 2705, including provisions for timely notice and consultation with respect to EPA and appropriate State and local officials.

7.2 Nothing in this Agreement shall alter SHAD's authority with respect

to removal actions conducted pursuant to Section 104 of CERCLA, 42 U.S.C. 9604.

7.3 EPA, DOHS, and RWQCB reserve any authority they may have concerning removal actions conducted on the Site.

8. REMEDIAL INVESTIGATION

8.0 SHAD agrees it shall conduct an RI of the Site, including an RI for each Operable Unit, which is consistent with CERCLA/SARA and the NCP and which is in accordance with the time schedules set forth in Attachment 2 and the requirements set forth in Attachment 3. Any RI shall meet the purposes set forth in Section 5. The Parties agree that final Site clean-up level criteria will only be determined following the completion of the Baseline Risk Assessment.

9. FEASIBILITY STUDY

9.0 SHAD agrees it shall conduct an FS for the Site, including an FS for any Operable Unit, which is consistent with CERCLA/SARA and the NCP and which is in accordance with the time schedules set forth in Attachment 2 and the requirements set forth in Attachment 3. Any FS shall meet the purposes set forth in Section 5.

10. REMEDIAL ACTION SELECTION AND IMPLEMENTATION

10.0 Following completion and a review in accordance with Section 12, Consultation, of an RI report and the corresponding FS report for all or part of the Site, SHAD shall, after review in accordance with Section 12,

publish its Proposed Plan for public review and comment in accordance with CERCLA/SARA, Section 117(a), 42 U.S.C. 9617(a), the NCP, and applicable guidance. Upon completion of the public comment period, all Parties will consult as to the need for modification of the Proposed Plan and additional public comment based on public response. When public comment has been properly considered, SHAD shall submit its draft Record of Decision (ROD) to the other Parties in accordance with Section 12 and the schedule in Attachment 2. After approval in accordance with Section 12, the ROD shall be published before commencement of the remedial action, in accordance with CERCLA/SARA, Section 117(b), 42 U.S.C. 9617(b). The final selection of the remedial action(s) by the Administrator shall not be subject to dispute in accordance with Section 13, Resolution of Disputes. At the time of submission of the draft ROD, SHAD shall submit a proposed schedule for implementation of the selected remedial action(s) to the other Parties in accordance with Section 12 and Attachment 2. SHAD shall implement the remedial action(s) in accordance with approved time schedules.

11. STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION

11.1 The Parties intend to integrate SHAD's CERCLA response obligations and RCRA corrective action obligations which relate to the release(s) of hazardous substances, hazardous wastes, pollutants, or contaminants covered by this Agreement into this comprehensive Agreement. Therefore, the Parties intend that activities covered by this Agreement will be deemed to achieve compliance with CERCLA, 42 U.S.C. 9601 et seq.; to satisfy the corrective action requirements of Sections 3004(u) and (v) of RCRA, 42 U.S.C. 6924(u)

and (v), for a RCRA permit, and Section 3008(h), 42 U.S.C. 6928(h), for interim status facilities; and to meet or exceed all ARARs, to the extent required by Section 121 of CERCLA, 42 U.S.C. 9621.

11.2 Based upon the foregoing, the Parties intend that any remedial action selected, implemented, and completed under this Agreement shall be deemed by the Parties to be protective of human health and the environment such that remediation of releases covered by this Agreement shall obviate the need for further corrective action under RCRA (i.e., no further corrective action shall be required). The Parties agree that with respect to releases of hazardous waste covered by this Agreement, RCRA shall be considered an ARAR pursuant to Section 121 of CERCLA, 42 U.S.C. 9621.

11.3 The Parties recognize that the requirement to obtain permits for response actions undertaken pursuant to this Agreement shall be as provided for in CERCLA and the NCP. The Parties further recognize that on-going hazardous waste management activities at the Site may require the issuance of permits under Federal and State laws. This Agreement does not affect the requirements, if any, to obtain such permits. However, if a permit is issued by another Party to SHAD for on-going hazardous waste management activities at the Site, the permit shall reference and incorporate in a permit condition, any appropriate provisions, including appropriate schedules (and the provisions for extension of such schedules), of this Agreement; the permit itself, however, is not subject to dispute resolution. The Parties intend that the judicial review of any permit conditions which reference this Agreement shall, to the extent authorized by law, only be reviewed under the provisions of CERCLA.

12. CONSULTATION

12.0 Review and Comment Process for Draft and Final Documents

12.1 Applicability: The provisions of this Section establish the procedures that shall be used by the Parties to provide each other with appropriate notice, review, comment, and response to comments regarding RI/FS and RD/RA documents, specified herein as either primary or secondary documents. In accordance with Section 120 of CERCLA, 42 U.S.C. 9620, and 10 U.S.C. 2705, SHAD will normally be responsible for issuing primary and secondary documents to the other Parties. As of the effective date of this Agreement, all draft, draft final, and final documents for any deliverable document identified herein shall be prepared, distributed, and subject to dispute in accordance with Subsections 12.2 through 12.10. The designation of a document as "draft" or "final" is solely for purposes of consultation among the Parties in accordance with this Section. Such designation does not affect the obligation of the Parties to issue documents, which may be referred to herein as "final", to the public for review and comment as appropriate and as required by law.

12.2 General Process for RI/FS and RD/RA Documents:

12.2.1 Primary documents include those documents that are major, discrete portions of RI/FS or RD/RA activities. Primary documents are initially issued by SHAD in draft subject to review and comment by the other Parties. Following receipt of comments on a particular draft primary document, SHAD will respond to the comments received and issue a draft final primary document subject to dispute resolution. The draft final primary document will become the final primary document either 30 days after receipt

by EPA, DOHS, and RWQCB of a draft final document if dispute resolution is not invoked, or as modified by decision of the dispute resolution process.

12.2.2 Secondary documents include those documents that are discrete portions of the primary documents and are typically input or feeder documents. Secondary documents are issued by SHAD in draft subject to review and comment by the other Parties. Although SHAD will respond to comments received, the draft secondary documents will be finalized in the context of the corresponding primary documents. A secondary document may be disputed at the time the corresponding draft final primary document is issued.

12.3 Primary Documents:

12.3.1 SHAD shall complete and transmit draft documents for the following primary documents to the other Parties for review and comment in accordance with the provisions of this Section:

1. Community Relations Plan
2. Work Plan for remaining RI/FS work (includes Health and Safety Plan for field work)
3. Quality Assurance Project Plan (QAPP)(Draft delivered per Attachment 2)
4. Initial Screening of Alternatives
5. RI Report (Initial draft delivered per Attachment 2)
6. FS Report
7. Proposed Plan
8. Record of Decision
9. Remedial Design
10. Remedial Action Operations Plan

12.3.2 Only the draft final documents for the primary documents identified above shall be subject to dispute resolution. SHAD shall complete and transmit draft primary documents in accordance with the timetables and deadlines established in Attachment 2 to this Agreement.

12.4 Secondary Documents:

12.4.1 SHAD shall complete and transmit draft documents for the following secondary documents to the other Parties for review and comment in accordance with the provisions of this Section:

1. Sample Plans
2. Well Closure Methods and Procedures
3. Baseline Risk Assessment
4. Quarterly Reports

12.4.2 Although EPA, DOHS, and RWQCB may comment on the draft documents for the secondary documents listed above, such documents shall not be subject to dispute resolution except as provided by Subsection 12.2. Target dates for the completion and transmission of draft secondary documents which are not in Attachment 2 to this Agreement shall be established by the Project Managers. The Project Managers may also identify additional secondary documents.

12.5 Meetings of the Project Managers on Development of Documents: The Project Managers shall meet approximately every sixty (60) days, except as otherwise agreed by the Parties, to review and discuss the progress of work being performed at the Site on the primary and secondary documents. Prior to preparing any draft document specified in Subsections 12.3 and 12.4, the Project Managers shall meet to discuss the document results in an effort to

reach a common understanding, to the maximum extent practicable, with respect to the results to be presented in the draft document.

12.6 Identification and Determination of Potential ARARs:

12.6.1 For those primary documents or secondary documents that consist of or include ARAR determinations, prior to the issuance of a draft document, the Project Managers shall meet to identify and propose, to the best of their ability, all potential ARARs pertinent to the document being addressed. EPA, RWQCB, and DOHS shall submit to SHAD a list of potential ARARs. Draft ARAR determinations shall be prepared by SHAD in accordance with Section 121(d)(2) of CERCLA, 42 U.S.C. 9621(d)(2), the NCP, and pertinent guidance issued by EPA, which is not inconsistent with CERCLA and the NCP.

12.6.2 In identifying potential ARARs, the Parties recognize that actual ARARs can be identified only on a site-specific basis and that ARARs depend on the specific hazardous substances, pollutants, and contaminants at a site, the particular actions proposed as a remedy, and the characteristics of a site. The Parties recognize that ARAR identification is necessarily an iterative process and that potential ARARs must be re-examined throughout the RI/FS process until a ROD is issued.

12.7 Review and Comment on Draft Documents:

12.7.1 SHAD shall complete and transmit each draft primary document to the other Parties on or before the corresponding deadline established for the issuance of the document. SHAD shall complete and transmit each draft secondary document in accordance with the target dates established for the issuance of such documents.

12.7.2 Unless the Parties mutually agree to another time period, all draft documents shall be subject to a sixty (60) day period for review and comment. Review of any document by the Parties may concern all aspects of the document (including completeness) and should include, but is not limited to, technical evaluation of any aspect of the document, and consistency with CERCLA, the NCP, and any pertinent guidance or policy which is issued by EPA, DOHS, or RWQCB. Comments by EPA, DOHS, and RWQCB shall be provided with adequate specificity so that SHAD may respond to the comment and, if appropriate, make changes to the draft document. Comments shall refer to any pertinent sources of authority or references upon which the comments are based, and, upon request of SHAD, the other Parties shall provide a copy of the cited authority or reference. In cases involving complex or unusually lengthy documents, the Parties may extend the sixty (60) day comment period for an additional thirty (30) days by written notice to SHAD prior to the end of the sixty (60) day period. On or before the close of the comment period, EPA, DOHS, and RWQCB shall transmit their written comments to SHAD.

12.7.3 Representatives of SHAD shall make themselves readily available to the other Parties during the comment period for purposes of informally responding to questions and comments on draft documents. Oral comments made during such discussions need not be the subject of a written response by SHAD on the close of the comment period.

12.7.4 In commenting on a draft document which contains a proposed ARAR determination, EPA, DOHS, and RWQCB shall include a reasoned statement of whether they object to any portion of the proposed ARAR determination. To the extent that any Party does object, it shall explain the bases for its

objection and shall identify any ARARs which it believes were not properly addressed in the proposed ARAR determination.

12.7.5 Following the close of the comment period for a draft document, SHAD shall give full consideration to all written comments on the draft document submitted during the comment period. Within sixty (60) days of the close of the comment period on a draft secondary document, SHAD shall transmit to the other Parties its written response to comments received within the comment period. Within sixty (60) days of the close of the comment period on a draft primary document, SHAD shall transmit to the other Parties a draft final primary document, which shall include SHAD's response to all written comments received within the comment period. While the resulting draft final document shall be the responsibility of SHAD, it shall be the product of consensus to the maximum extent possible.

12.7.6 SHAD may extend the sixty (60) day period for either responding to comments on a draft document or for issuing the draft final primary document for an additional thirty (30) days by providing notice to the other Parties.

12.7.7 In appropriate circumstances, these time periods may be further extended in accordance with Section 28, Extensions.

12.7.8 Comments by DOHS and RWQCB under this Section shall be provided to SHAD through DOHS.

12.8 Availability of Dispute Resolution for Draft Final Primary Documents:

12.8.1 Dispute resolution shall be available to the Parties for draft final primary documents as set forth in Section 13.

12.8.2 When dispute resolution is invoked on a draft final primary

document, work may be stopped in accordance with the procedures set forth in Subsection 13.9 regarding dispute resolution. *Should be 13.10*

12.9 Finalization of Documents: The draft final primary document shall serve as the final primary document if no party invokes dispute resolution regarding the document or, if invoked, at completion of the dispute resolution process should SHAD's position be sustained. If SHAD's determination is not sustained in the dispute resolution process, SHAD shall prepare, within not more than forty-five (45) days, a revision of the draft final document which conforms to the results of dispute resolution. In appropriate circumstances, the time period for this revision period may be extended in accordance with Section 28, Extensions.

12.10 Subsequent Modifications of Final Documents:

12.10.1 Following finalization of any primary document pursuant to Subsection 12.9, the Parties may seek to modify the document, including seeking additional field work, pilot studies, computer modeling, or other supporting technical work, only as provided in Subsections 12.10.2 and 12.10.3.

12.10.2 A Party may seek to modify a document after finalization if it determines, based on new information (i.e., information that became available, or conditions that became known, after the document was finalized) that the requested modification is necessary. A Party may seek such a modification by submitting a concise written request to the Project Managers of the other Parties. The request shall specify the nature of the requested modification and how the request is based on new information.

12.10.3 In the event that a consensus is not reached by the Project

Managers on the need for a modification, a Party may invoke dispute resolution to determine if such modification shall be conducted. Modification of a document shall be required only upon a showing that: (1) the requested modification is based on significant new information; and (2) the requested modification could be of significant assistance in evaluating impacts on the public health or the environment, in evaluating the selection of remedial alternatives, or in protecting human health and the environment.

12.10.4 Nothing in this Subsection shall alter a Party's ability to request the performance of additional work which was not contemplated by this Agreement. SHAD's obligation to perform such work must be established by either a modification of a document or by amendment of this Agreement

12.10.5 Any changes in timetables and deadlines required by subsequent modifications of final documents or additional work shall be determined pursuant to Section 28, Extensions.

13. RESOLUTION OF DISPUTES

13.1 Except as specifically set forth elsewhere in this Agreement, if a dispute arises under this Agreement, the procedures of this Section shall apply. All Parties may invoke the dispute resolution procedures. All Parties shall make reasonable efforts to informally resolve disputes at the Project Manager or immediate supervisor level. If resolution cannot be achieved informally, the procedures of this Section shall be implemented to resolve a dispute.

13.2 Within thirty (30) days after (1) receipt by EPA, DOHS, and RWQCB of a draft final primary document pursuant to Section 12, Consultation, or (2)

any action which leads to or generates a dispute, the disputing Party shall submit to the Dispute Resolution Committee (DRC) a written statement of dispute setting forth the nature of the dispute, the work affected by the dispute, the disputing Party's position with respect to the dispute and the technical, legal, or factual information the disputing Party is relying upon to support its position.

13.3 Prior to any Party's issuance of a written statement of dispute, the disputing Party shall engage the other Parties in informal dispute resolution among the Project Managers and/or their immediate supervisors. During this informal dispute resolution period the Parties shall meet as many times as are necessary to discuss and attempt resolution of the dispute.

13.4 The DRC will serve as a forum for resolution of disputes for which agreement has not been reached through informal dispute resolution. the Parties shall each designate one individual and an alternate to serve on the DRC. The individuals designated to serve on the DRC shall be employed at the policy level or be delegated the authority to participate on the DRC for the purposes of dispute resolution under this Agreement. EPA's designated member on the DRC is the Waste Management Division Director of EPA's Region IX. SHAD's designated member is the Commander, Sharpe Army Depot. RWQCB's designated member is the Supervising Engineer or equivalent for San Joaquin County. DOHS' designated member is the chief of the Site Mitigation Unit, Region 1. Written notice of any delegation of authority from a Party's designated representative on the DRC shall be provided to all other Parties pursuant to the procedures of Section 16, Notification.

13.5 Following elevation of a dispute to the DRC, the DRC shall have

twenty-one (21) days to unanimously resolve the dispute and issue a written decision. If the DRC is unable to unanimously resolve the dispute within this twenty-one (21) day period, the written statement of dispute shall be forwarded to the Senior Executive Committee (SEC) for resolution within seven (7) days after the close of the twenty-one (21) day resolution period.

13.6 The SEC will serve as the forum for resolution of disputes for which agreement has not been reached by the DRC. EPA's representative on the SEC is the Regional Administrator of EPA's Region IX. SHAD's representative on the SEC is the Deputy for the Environment, Safety, and Occupational Health, Office of the Assistant Secretary of the Army for Installations and Logistics. RWQCB's representative on the SEC is the Executive Officer.

DOHS' representative on the SEC is the Chief of the Region 1. The SEC members shall, as appropriate, confer, meet, and exert their best efforts to resolve the dispute and issue a written decision. If unanimous resolution of the dispute is not reached within twenty-one (21) days, EPA's Regional Administrator shall issue a written position on the dispute. Any other Party may, within fourteen (14) days of the Regional Administrator's issuance of EPA's position, issue a written notice elevating the dispute to the Administrator of EPA for resolution in accordance with all applicable laws and procedures. In the event that no Party elects to elevate the dispute to the Administrator within the designated fourteen (14) day escalation period, all Parties shall be deemed to have agreed with the Regional Administrator's written position with respect to the dispute.

13.7 Upon escalation of a dispute to the Administrator pursuant to Subsection 13.6, the Administrator will review and resolve the dispute

within twenty-one (21) days. Upon request, and prior to resolving the dispute, the Administrator shall meet and confer with the Army Secretariat Representative, the Executive Officer of the RWQCB, and DOHS's Deputy Director of the Toxic Substances Control Division to discuss the issue(s) under dispute. Upon resolution, the Administrator shall provide the other Parties with a written final decision setting forth resolution of the dispute. The duties of the Administrator set forth in this Section shall not be delegated.

13.8 Wherever in this Section unanimity of decision among the Parties is required for resolving disputes, DOHS and RWQCB, as agencies of the State of California, shall have one vote between them regardless of the fact that they may have more than one representative representing them at the particular stage of dispute resolution. It shall be their responsibility to determine who shall cast their vote on their behalf.

13.9 The pendency of any dispute under this Section shall not affect SHAD's responsibility for timely performance of the work required by this Agreement, except that the time period for completion of work affected by such dispute shall be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the work required by this Agreement which are not affected by the dispute shall continue and be completed in accordance with the applicable schedule.

13.10 When dispute resolution is in progress, work affected by the dispute will immediately be discontinued if a DRC member requests, in writing, that work related to the dispute be stopped because, in his or her opinion, such

work is inadequate or defective, and such inadequacy or defect is likely to yield an adverse effect on human health or the environment, or is likely to have a substantial adverse effect on the remedy selection or implementation process. To the extent possible, the DRC member requesting the work stoppage shall consult with the other DRC members prior to initiating a work stoppage request. After stoppage of work, if another DRC member believes that the work stoppage is inappropriate or may have potential significant adverse impacts, the DRC shall meet to discuss the work stoppage. Following this meeting, and further consideration of the issues, the DRC members (other than the SHAD member) will issue, in writing, a final decision with respect to the work stoppage. The final written decision of the DRC may immediately be subjected to formal dispute resolution. Such dispute may be brought directly to the SEC.

13.11 Within twenty-one (21) days of resolution of a dispute pursuant to the procedures specified in this Section, SHAD shall incorporate the resolution and final determination into the appropriate plan, schedule, or procedures and proceed to implement this Agreement according to the amended plan, schedule, or procedure.

13.12 Subject to Section 26, Covenant Not to Sue and Reservation of Rights, and Section 31, Enforceability, resolution of a dispute pursuant to this Section constitutes a final resolution of such dispute arising under this Agreement. All Parties shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this Section.

14. PROTECTION OF THE PUBLIC

14.0 All activities under this Agreement will be conducted pursuant to the Health and Safety Plan and will be conducted so as to minimize any threat to the surrounding communities. Notwithstanding any authority EPA, DOHS, or RWQCB may otherwise have, in the event that EPA, DOHS, or RWQCB determine that activities conducted pursuant to this Agreement, or any other circumstances or activities, are creating a danger to the health or welfare of the people on the Site or in the surrounding area or to the environment, EPA, DOHS, or RWQCB may request SHAD to stop further implementation of this Agreement to abate the danger. SHAD shall comply with any such request for a period of at least twenty-four (24) hours and for any longer period agreed upon by EPA, DOHS, and RWQCB. In complying with any request under this Section, SHAD shall not be liable for failure to comply with other Sections of this Agreement affected by the request.

15. REPORTING REQUIREMENTS

15.1 SHAD shall submit to the other Parties quarterly written progress reports. The reports will include but not be limited to the following information:

15.1.1 A detailed summary of all of the remedial, removal, and investigation activities during the previous quarter, including any analytical results, any community relations activities, and any community contacts or inquiries related to the hazardous substance contamination at the Site;

15.1.2 An outline of the planned activities for the following quarter;

15.1.3 A detailed statement of the manner and the extent to which the timetables and deadlines are being met;

15.1.4 Any decision making rationale which has or will impact the activities described in the Attachments;

15.1.5 The status of obtaining rights-of-entry necessary for monitoring and well installation off-Depot;

15.1.6 The status of any other SHAD activities proposed or underway that may impact any phase of the activities described in the Attachments;

15.1.7 Any anticipated delays in meeting time schedules, including the anticipated length of the delay, the reason(s) for the delay and actions taken to prevent or mitigate the delay; however, this notice shall not substitute for the requirements of Section 28, Extensions. SHAD will take reasonable action to minimize any delay; and,

15.1.8 A revised Attachment 2 which includes any changes or additions to the schedule, when such changes or additions have been agreed upon by the Parties.

15.2 The quarterly written progress reports shall be submitted on the 10th day of each calendar quarter following the effective date of this Agreement.

16. NOTIFICATION

16.0 Unless otherwise specified, any document provided pursuant to a timetable and deadline identified in or developed under this Agreement, or notice of any delegation of authority, shall be transmitted to:

U.S. Environmental Protection Agency, Region IX
Toxic Waste Management Division,
Superfund Program Branch, Federal Enforcement Section
215 Fremont Street, San Francisco, CA 94105
Attn: Sharpe Remedial Project Manager, T-4-6

California Department of Health Services
Site Mitigation Unit
4250 Power Inn Road
Sacramento, CA 95827
Attn: Senior of Military Team

California Regional Water Quality Control Board
3443 Routier Road
Sacramento, CA 95827
Attn: Sharpe Project Manager

Documents sent to SHAD shall be addressed as follows unless SHAD specifies otherwise by written notice:

Commander
Sharpe Army Depot
Attn: SDSSH-EM
Lathrop, CA 95331

17. PROJECT MANAGERS

17.1 The Parties shall each designate a Project Manager and Alternate (herein jointly referred to as Project Manager) for the purpose of overseeing the implementation of this Agreement. Each Party shall notify the others of the name and address of its Project Manager. Any Party may change its designated Project Manager by notifying the other Parties, in writing, within five days of the change. To the maximum extent possible, communications between the Parties concerning the terms and conditions of this Agreement shall be directed through the Project Managers as set forth in Section 16, Notification. Each Project Manager shall be responsible for assuring that all communications from the other Project Managers are appropriately disseminated and processed by the entities which the Project

Manager represents.

17.2 Subject to the limitations set forth in Section 20, Access, and Section 24, Release of Records, the Project Managers of EPA, DOHS, and RWQCB shall have the authority to: (1) take samples and request split samples of SHAD's samples to ensure that work is performed properly and pursuant to this Agreement; (2) observe all activities performed pursuant to this Agreement, take photographs and make such other documents on the progress of the work as the Project Managers deem appropriate; and (3) review records, files, and documents.

17.3 Any Project Manager may recommend and request minor field modifications of the work to be performed pursuant to this Agreement, or in techniques, procedures, or design utilized in carrying out this Agreement, which are necessary for the completion of the project.

17.4 Any field modifications proposed under this Section by any Project Managers must be approved orally by all four (4) Project Managers to be effective. Within five (5) business days following a modification made pursuant to this Section, the Project Manager who requested the modification shall prepare a memorandum detailing the modification and the reasons therefor and shall provide or mail a copy of the memorandum to the other Project Managers.

17.5 SHAD's Project Manager shall be physically present on Sharpe or reasonably available to supervise work performed at Sharpe during the implementation of the work performed pursuant to this Agreement and shall make himself available to the other Project Managers for the duration of this Agreement. The absence of the EPA, DOHS, or RWQCB Project Managers from the

Site shall not be cause of work stoppage.

18. SAMPLING AND DATA AVAILABILITY

18.1 The Parties shall make available to each other quality assured results of sampling, tests, or other data generated by any Party, or on their behalf, with respect to the implementation of this Agreement within sixty (60) days of their collection or performance. If the quality assurance procedure is not completed within sixty (60) days, raw data or results shall be submitted within the sixty (60) day period and quality assured data or results shall be submitted as soon as they become available.

18.2 At the request of EPA, DOHS, or RWQCB Project Managers, SHAD shall allow split or duplicate samples to be taken by EPA, DOHS, or RWQCB during sample collection conducted during the implementation of this Agreement. SHAD's Project Manager shall endeavor to notify the EPA, DOHS, and RWQCB Project Managers not less than ten (10) business days in advance of any sample collection. If it is not possible to provide ten (10) business days prior notification, SHAD shall notify the EPA, DOHS, and RWQCB Project Managers as soon as possible after becoming aware that samples will be collected.

19. RETENTION OF RECORDS

19.0 SHAD shall preserve for a minimum of ten (10) years after termination of this Agreement the complete Administrative Record, and post ROD primary and secondary documents. After this ten (10) year period, SHAD shall notify

the EPA, DOHS, and RWQCB at least forty-five (45) days prior to destruction of any such documents or records. Requests for any records will be in accordance with Section 24, Release of Records.

20. ACCESS

20.1 EPA, DOHS, RWQCB and their authorized representatives shall have the authority to enter the Depot at all reasonable times for the purposes of, among other things:

20.1.1 Inspecting records, operating logs, and other documents relevant to the implementation of the Agreement, subject to Section 24, Release of Records;

20.1.2 Reviewing the progress of SHAD and its response action in the implementation of this Agreement;

20.1.3 Conducting such relevant sampling as EPA, DOHS, or RWQCB deem necessary; and,

20.1.4 Verifying the data submitted to EPA, DOHS, and RWQCB by SHAD.

20.2 SHAD shall honor all reasonable requests for such access by EPA, DOHS, and RWQCB conditioned only upon presentation of proper credentials.

However, such access shall be obtained in conformance with, and may be limited by, SHAD's security regulations and shall be exercised in a manner minimizing interference with operations at the Depot. All unclassified written security regulations and policies will be open to review by the Parties and, if applied, identified and made available to the Parties.

20.3 To the extent that access is requested to areas of the Site pres-

ently owned by or leased to persons other than SHAD, SHAD agrees to exercise any authority it has to obtain access pursuant to Section 104(e) of CERCLA, 42 U.S.C. 9604(e), from the present owners and/or lessees within sixty (60) calendar days after approval, in accordance with Section 12, Consultation, of the relevant primary final document which requires access. SHAD shall use its best efforts to: (1) obtain access agreements which shall provide reasonable access to EPA, DOHS, and RWQCB and their authorized representatives; (2) with respect to non-SHAD property upon which monitoring wells, treatment facilities, or other response actions are to be located, obtain access agreements that provide that no conveyance of title, easement, or other interest in the property shall be consummated without provisions for the continued operation of such wells, treatment facilities, or other response actions on the property; and (3) obtain access agreements that provide that the owners of any property where monitoring wells, pumping wells, treatment facilities, or other response actions are located shall notify the Parties by certified mail, at least thirty (30) days prior to any conveyance, of the property owner's intent to convey any interest in the property and of the provisions made for the continued operation of the monitoring wells, treatment facilities, or other response actions installed pursuant to this Agreement.

20.4 In the event that Site access is not obtained within the sixty (60) day time period set forth in Subsection 20.3, within fifteen (15) days after the expiration of the sixty (60) day period, SHAD shall notify EPA, DOHS, and RWQCB regarding the lack of, and the efforts to obtain, such access agreements. Within fifteen (15) days of any such notice, SHAD shall, if

necessary, submit any appropriate proposed modification(s) to this Agreement in response to such inability to obtain access.

21. FIVE YEAR REVIEW

21.0 Consistent with Section 121(c) of CERCLA/SARA, 42 U.S.C. 9621(c), and in accordance with this Agreement, SHAD agrees that EPA, DOHS, and RWQCB will review the remedial action no less often than each five (5) years after initiation of the final remedial action to assure that human health and the environment are being protected by the remedial action being implemented. If upon such review it is the judgment of EPA, DOHS, and RWQCB that additional action or modification of the remedial action is appropriate in accordance with Sections 104 or 106 of CERCLA/SARA, EPA, DOHS, and RWQCB shall propose such additional or modified action. Such additional or modified action shall be discussed by the Parties and, if agreed upon, be added to the work required by this Agreement. If the Parties cannot agree within twenty-one (21) days, the position of EPA shall be adopted. Any such position of EPA may be disputed, using the procedures in Section 13, Resolution of Disputes, by any Party within thirty (30) days of notice by EPA of its adoption.

22. OTHER CLAIMS

22.1 Nothing in this Agreement shall constitute or be construed as a bar or release from any claim, cause of action, or demand in law or equity by or against any person, firm, partnership, or corporation not a signatory to

this Agreement for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or from the Depot.

22.2 EPA, DOHS, and RWQCB shall not be held as parties to any contract entered into by SHAD to implement the requirements of this Agreement. EPA, DOHS, and RWQCB shall not give directions or instructions to contractors employed by SHAD without SHAD's explicit permission.

22.3 This Agreement shall not restrict EPA, DOHS, or RWQCB from taking any legal or response action for any matter not part of the subject matter of this Agreement.

23. OTHER APPLICABLE LAWS

23.0 All actions required to be taken pursuant to this Agreement shall, at a minimum, be undertaken in accordance with the requirements of all applicable state and federal laws and regulations to the extent required by CERCLA/SARA.

24. RELEASE OF RECORDS

24.1 The Parties may request of one another access to or a copy of any record or document. If the Party that is the subject of the request (the originating Party) has the record or document, that Party shall provide access to or a copy of the record or document; provided, however, that no access to or copies of records or documents need be provided if they are

subject to claims of attorney-client privilege, attorney work product, or properly classified for national security under law or executive order. Records or documents identified by the originating Party as confidential pursuant to other non-disclosure provisions of the Freedom of Information Act, 5 U.S.C. 552, or the California Public Records Act, Chapter 3.5 of the California Government Code, shall be released to the requesting Party, provided the requesting Party states in writing that it will not release the record or document to the public without prior approval of the originating Party. Records or documents which are provided to the requesting Party and which are not identified as confidential may be made available to the public without further notice to the originating Party.

24.2 The Parties will not assert one of the above exemptions, including any available under the Freedom of Information Act or California Public Records Act, even if available, if no governmental interest would be jeopardized by access or release. Any documents required to be provided by Section 12, Consultation, and analytical data showing testing results will always be releasable and no exemption shall be asserted by any Party. This Section does not change any requirement regarding press releases in Section 30, Public Participation. A determination not to release a document for one of the reasons specified above shall not be subject to Section 13, Resolution of Disputes. Any Party objecting to another Party's determination may pursue the objection through the determining Party's appeal procedures.

25. AMENDMENT OF AGREEMENT

25.0 This Agreement may only be amended by a written agreement between the

Parties.

26. COVENANT NOT TO SUE AND RESERVATION OF RIGHTS

26.1 In consideration for SHAD's compliance with this Agreement, and based on the information known to the Parties on the effective date of this Agreement, EPA, DOHS, and RWQCB agree that compliance with this Agreement shall stand in lieu of any administrative, legal, and equitable remedies against SHAD available to them regarding the currently known releases or threatened releases of hazardous substances including hazardous wastes, pollutants, or contaminants at the Site which are within the scope of this Agreement, which are the subject of the RI/FS(s) to be conducted pursuant to this Agreement, and which will be adequately addressed by the remedial action(s) provided for under this Agreement; except that nothing in this Agreement shall preclude EPA, DOHS, or RWQCB from exercising any administrative, legal, or equitable remedies available to them to require additional response actions by SHAD in the event that (1)(a) conditions previously unknown or undetected by EPA, DOHS, and RWQCB arise or are discovered at the Site, or, (b) EPA, DOHS, or RWQCB receive additional information not previously available concerning the premises which they employed in reaching this Agreement, and (2) the implementation of the requirements of this Agreement are no longer protective of public health and the environment. The Parties shall endeavor to implement such additional response actions through the provisions of Section 12.10 or Section 25.

26.2 The provisions of this Agreement, including Subsection 26.1, notwithstanding, DOHS and RWQCB retain any statutory right they may have absent

this Agreement to obtain judicial review of any final decision of EPA on selection of a remedial action pursuant to any authority they may have under CERCLA, including Sections 113, 121(e)(2) and (f), and 310, 42 U.S.C. 9613, 9621(e)(2) and (f), and 9659.

27. STIPULATED PENALTIES

27.1 In the event that SHAD fails to submit a primary document to the other Parties pursuant to the appropriate timetable or deadline in accordance with the requirements of this Agreement, or fails to comply with a term or condition of this Agreement which relates to a remedial action, the other Parties may, acting jointly, assess a stipulated penalty against SHAD. A stipulated penalty may be assessed in an amount not to exceed \$5,000 for the first week (or part thereof), and \$10,000 for each additional week (or part thereof) for which a failure set forth in this Subsection occurs.

27.2 Upon determining that SHAD has failed in a manner set forth in Subsection 27.1, the other Parties shall so notify SHAD in writing. If the failure in question is not already subject to dispute resolution at the time such notice is received, SHAD shall have fifteen (15) days after receipt of the notice to invoke dispute resolution on the question of whether the failure did in fact occur. SHAD shall not be liable for the stipulated penalty assessed by the other Parties if the failure is determined, through the dispute resolution process, not to have occurred. No assessment of a stipulated penalty shall be final until the conclusion of dispute resolution procedures related to the assessment of the stipulated penalty.

27.3 The annual reports required by Section 120(e)(5) of CERCLA, 42 U.S.C.

9620(e)(5), shall include, with respect to each final assessment of a stipulated penalty against SHAD under this Agreement, each of the following:

1. The facility responsible for the failure;
2. A statement of the facts and circumstances giving rise to the failure;
3. A statement of any administrative or other corrective action taken at the relevant facility, or a statement of why such measures were determined to be inappropriate;
4. A statement of any additional action taken by or at the facility to prevent recurrence of the same type of failure; and,
5. The total dollar amount of the stipulated penalty assessed for the particular failure.

27.4 Stipulated penalties assessed pursuant to this Section shall be payable to the Hazardous Substance Superfund and only in the manner and to the extent expressly provided for in Acts authorizing funds for, and appropriations to, the Department of Defense (DOD). EPA, DOHS, and RWQCB agree, to the extent allowed by law, to share equally any stipulated penalties paid by SHAD between the Hazardous Substance Superfund and an appropriate State fund.

27.5 In no event shall this Section give rise to a stipulated penalty in excess of the amount set forth in Section 109 of CERCLA, 42 U.S.C. 9609.

27.6 This Section shall not affect SHAD's ability to obtain an extension of a timetable, deadline, or schedule pursuant to Section 28, Extensions.

27.7 Nothing in this Agreement shall be construed to render any officer or employee of SHAD personally liable for the payment of any stipulated pen-

alty assessed pursuant to this Section.

28. EXTENSIONS

28.1 Either a timetable and deadline or a schedule shall be extended upon receipt of a timely request for extension and when good cause exists for the requested extension. Any request for extension by SHAD shall be submitted in writing and shall specify:

1. The timetable and deadline or the schedule that is sought to be extended;
2. The length of the extension sought;
3. The good cause(s) for the extension; and,
4. Any related timetable and deadline or schedule that would be affected if the extension were granted.

28.2 Good cause exists for an extension when sought in regard to:

1. An event of force majeure;
2. A delay caused by another party's failure to meet any requirement of this agreement;
3. A delay caused by the good faith invocation of dispute resolution or the initiation of judicial action;
4. A delay caused, or which is likely to be caused, by the grant of an extension in regard to another timetable and deadline or schedule; and,
5. Any other event or series of events mutually agreed to by the Parties as constituting good cause.

28.3 Absent agreement of the Parties with respect to the existence of

good cause, SHAD may seek and obtain a determination through the dispute resolution process that good cause exists.

28.4 Within seven (7) days of receipt of a request for an extension of a timetable and deadline or a schedule, EPA, in consultation with DOHS and RWQCB, shall advise SHAD in writing of their position on the request. Any failure by EPA to respond within the seven (7) day period shall be deemed to constitute concurrence in the request for extension. If EPA does not concur in the requested extension, it shall include in its statement of nonconcurrence an explanation of the basis for its position.

28.5 If there is consensus among the Parties that the requested extension is warranted, SHAD shall extend the affected timetable and deadline or schedule accordingly. If there is no consensus among the Parties as to whether all or part of the requested extension is warranted, the timetable and deadline or schedule shall not be extended except in accordance with a determination resulting from the dispute resolution process.

28.6 Within seven (7) days of receipt of a statement of nonconcurrence with the requested extension, SHAD may invoke dispute resolution.

28.7 A timely and good faith request for an extension shall toll any assessment of stipulated penalties against SHAD or application for judicial enforcement of the affected timetable and deadline or schedule until a decision is reached on whether the requested extension will be approved. If dispute resolution is invoked and the requested extension is denied, stipulated penalties may be assessed against SHAD and may accrue from the date of the original timetable, deadline, or schedule. Following the grant of an extension, an assessment of stipulated penalties or an application for judi-

cial enforcement may be sought only to compel compliance with the timetable and deadline or schedule as most recently extended.

29. CONVEYANCE OF TITLE

29.0 No conveyance of title, easement, or other interest in SHAD property on which any containment system, treatment system, monitoring system, or other response action is installed or implemented pursuant to this Agreement shall be consummated by SHAD without provision for continued maintenance of any such system or other response action. At least thirty (30) days prior to any conveyance, SHAD shall notify EPA, DOHS, and RWQCB of the provisions made for the continued operation and maintenance of any response action or system installed or implemented pursuant to this Agreement.

30. PUBLIC PARTICIPATION

30.1 The Parties agree that any proposed remedial action alternative(s) and plan(s) for remedial action at the Site arising out of this Agreement shall comply with the administrative record and public participation requirements of CERCLA/SARA Sections 113(k) and 117, 42 U.S.C. 9613(k) and 9617, applicable community relations provisions in the NCP, and other relevant EPA guidance on public participation and administrative records, California Health and Safety Code Section 25358.7, and other relevant state requirements concerning public participation.

30.2 SHAD shall develop and implement a Community Relations Plan (CRP) which responds to the need for an interactive relationship with all interested community elements, both on and off-Depot, regarding the environmental

activities and elements of work undertaken by SHAD. SHAD agrees to develop and implement the CRP in a manner consistent with Section 117 of CERCLA/SARA, 42 U.S.C. 9617, applicable community relations provisions of the NCP, and EPA guidelines set forth in the EPA Community Relations Handbook, and relevant state requirements concerning public participation.

30.3 Any Party issuing a written press release to the media, including the SHAD newspaper, regarding any of the work required by this Agreement shall advise all other Parties of such written press release and the contents thereof, at least twenty-four (24) hours before the issuance of such press release and of any subsequent changes prior to release. No Party receiving a press release under this Subsection will release it to any person until it is released by the originating Party; provided, nothing herein shall prevent a Party from disclosing information from a press release where such disclosure is required by the California Safe Drinking Water and Toxic Enforcement Act of 1986 or where the press release contains information regarding an imminent or substantial threat to public health or to the environment.

30.4 SHAD shall establish and maintain two (2) identical administrative records, one at the Depot, and one at a location near the Depot and convenient to the public, which shall provide the documentation supporting the selection of each response action in accordance with Section 113(k) of CERCLA/SARA, 42 U.S.C. 9613(k). The administrative record shall be established and maintained in accordance with current and future EPA policies and guidelines. A copy of each document placed in the administrative record, not already provided, will be provided to the EPA, DOHS, and RWQCB. The administrative record developed by SHAD shall be updated and new documents

supplied to EPA, DOHS, and RWQCB on at least a quarterly basis. An index of documents in the administrative record will accompany each update of the administrative record.

31. ENFORCEABILITY

31.1 The Parties agree that:

31.1.1 Upon the effective date of this Agreement, any standard, regulation, condition, requirement, or order which has become effective under CERCLA and is incorporated into this Agreement is enforceable by any person pursuant to Section 310 of CERCLA, and any violation of such standard, regulation, condition, requirement, or order will be subject to civil penalties under Sections 310(c) and 109 of CERCLA, 42 U.S.C. 9609;

31.1.2 All timetables and deadlines associated with the RI/FS shall be enforceable by any person pursuant to Section 310 of CERCLA, and any violation of such timetables or deadlines will be subject to civil penalties under Sections 310(c) and 109 of CERCLA;

31.1.3 All terms and conditions of this Agreement which relate to remedial actions, including corresponding timetables, deadlines, or schedules, and all work associated with the remedial actions, shall be enforceable by any person pursuant to Section 310(c) of CERCLA, and any violation of such terms or conditions will be subject to civil penalties under Sections 310(c) and 109 of CERCLA; and,

31.1.4 Any final resolution of a dispute pursuant to Section 13, Resolution of Disputes, which establishes a term, condition, timetable, deadline, or schedule shall be enforceable by any person pursuant to Section

310(c) of CERCLA, and any violation of such term, condition, timetable, deadline, or schedule will be subject to civil penalties under Section 310(c) and 109 of CERCLA.

31.2 Nothing in this Agreement shall be construed as authorizing any person to seek judicial review of any action or work where review is barred by any provision of CERCLA, including Section 113(h) of CERCLA, 42 U.S.C. 9613(h).

31.3 The Parties agree that all Parties shall have the right to enforce the terms of this Agreement.

32. TERMINATION

32.0 The provisions of this Agreement shall be deemed satisfied and terminated upon receipt by SHAD of written notice from EPA, with the concurrence of DOHS and RWQCB, that SHAD has demonstrated, to the satisfaction of the EPA, DOHS, and RWQCB, that all the terms of this Agreement have been completed.

33. PUBLIC COMMENT/EFFECTIVE DATE

33.1 Public comment on this Agreement shall be conducted in accordance with this Section.

33.1.1 Within fifteen (15) days of the execution of this Agreement, SHAD shall publish notice in at least one major local newspaper of general circulation that this Agreement is available for a forty-five (45) day period of public review and comment.

33.1.2 Promptly upon completion of the public comment period, SHAD shall transmit to the other Parties copies of all comments received within

the comment period.

33.1.3 The Parties shall review the comments and shall either:

33.1.3.1 Determine that this Agreement should be made effective in its present form, in which case EPA shall notify all Parties in writing and this Agreement shall become effective on the date that SHAD receives such notification; or,

33.1.3.2 Determine that modification of this Agreement is necessary, in which case the Parties shall meet to discuss and agree upon any proposed changes. Upon agreement of any proposed changes, the Agreement, as modified, shall be re-executed by the Parties, with EPA signing last, and shall become effective on the date that it is signed by EPA.

33.2 In the event a Party determines that it is necessary to modify this Agreement as a result of public comment received, and there is disagreement among the Parties as to the need for such modification, the Party proposing the modification may submit the disagreement to dispute resolution provided for in Section 13.

34. FUNDING

34.1 It is the expectation of the Parties to this Agreement that all obligations of SHAD arising under this Agreement will be fully funded. SHAD agrees to seek sufficient funding through the DOD budgetary process to fulfill its obligations under this Agreement.

34.2 In accordance with Section 120(e)(5)(B) of CERCLA, 42 U.S.C. 9620(e)(5)(B), the Department of the Army shall include in its annual report to Congress the specific cost estimates and budgetary proposals associated

with the implementation of this Agreement.

34.3 Any requirement for the payment or obligation of funds, including stipulated penalties, by SHAD established by the terms of this Agreement shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. 1341. In cases where payment or obligation of funds would constitute a violation of the Anti-Deficiency Act, the dates established requiring the payment or obligation of such funds shall be appropriately adjusted.

34.4 If appropriated funds are not available to fulfill SHAD's obligations under this Agreement, the other Parties reserve the right to initiate an action against any other person, or to take any action, which would be appropriate absent this Agreement.

34.5 Funds authorized and appropriated annually by Congress under the "Environmental Restoration, Defense" appropriation in the Department of Defense Appropriation Act and allocated by the DASD(E) to the Department of the Army will be the source of funds for obligations required by this Agreement consistent with Section 211 of CERCLA/SARA, 10 U.S.C. Chapter 160. However, should the Environmental Restoration, Defense appropriation be inadequate in any year to meet the total Department of the Army CERCLA implementation requirements, the DOD shall employ and SHAD shall follow a standardized DOD prioritization process which allocates that year's appropriations in a manner which maximizes the protection of human health and the environment. A standardized DOD prioritization model shall be developed and utilized with the assistance of EPA and the states.

35. COST REIMBURSEMENT

35.1 SHAD, pursuant to its authority under 10 U.S.C. 2701(d), agrees to request funding from Congress and to reimburse DOHS and RWQCB for the costs related to the implementation of the Agreement as provided in this Section.

35.1.1 The amount of reimbursable costs payable under this Agreement shall not exceed eighty thousand dollars (\$ 80,000.00) per year for the first two (2) years of the Agreement. Any invoiced amounts exceeding the first year's cap shall roll over to the second year. Any invoiced amounts exceeding the yearly cap at the end of the second year shall not be payable under this Agreement unless the Parties agree otherwise.

35.1.2 Prior to the end of the second year, the amount of reimbursable costs for the subsequent years shall be renegotiated in accordance with any then existing agreement on the subject between DOD and the State of California.

35.1.3 If no such agreement has been reached between DOD and the State, SHAD and DOHS and RWQCB agree to negotiate in good faith a cap for future reimbursable costs. If SHAD and DOHS and RWQCB are unable to reach agreement after such negotiations, they shall refer any unresolved issues to dispute resolution in accordance with Subsection 35.7.

35.1.4 If SHAD and DOHS and RWQCB are unable to resolve the issues in dispute through the dispute resolution process of Subsection 35.7, DOHS or RWQCB, as the case may be, may withdraw as a party to this Agreement by providing written notice of its withdrawal to each of the remaining Parties. Such withdrawal by DOHS or RWQCB, as the case may be, shall terminate all of the rights and obligations the withdrawing Party may have under this

Agreement; provided, however, that any actions taken under or pursuant to this Agreement by the withdrawing Party prior to its withdrawal shall continue to have full force and effect as if the withdrawing Party were still a Party to this Agreement.

35.1.5 Nothing in this Agreement constitutes a waiver of any claims by DOHS or RWQCB for costs expended prior to the effective date of this Agreement.

35.2 Services:

35.2.1 Reimbursable costs shall consist only of actual expenditures required to be made and actually made by DOHS or RWQCB to fulfill their participation under Sections 12, Consultation, 13, Resolution of Disputes, 17, Project Managers, 21, Five Year Review, and 30, Public Participation.

35.2.2 All reimbursable costs are subject to Section 34, Funding. Reimbursable costs must be reasonable; they shall not include payment for any activity for which DOHS or RWQCB, as the case may be, receives payment or reimbursement from another agency of the United States Government; they shall not include profit or interest on any activity performed within the agency; they shall not include payment for anything violative of Federal or State statutes or regulations; and, they must be allocable to the services provided in accordance with Subsection 35.2.1. Duplicative laboratory work by one State agency of that of another already reimbursed shall not be reimbursable. Travel expenses shall not exceed those expenses allowed by the California State Board of Control for reimbursement of travel expenses.

35.3 Within ninety (90) days after the end of each quarter of the federal government fiscal year, DOHS shall submit to SHAD an invoice for all

reimbursable costs incurred during the previous quarter by DOHS and RWQCB related to Subsection 35.2. If no invoice is properly presented within one-hundred and twenty (120) days of the end of any quarter, SHAD shall assume that no costs are reimbursable for that quarter to either DOHS or RWQCB, and will have no further obligation to pay any costs that may have been incurred during that quarter. Any costs incurred during a quarter and not reflected in the invoice for that quarter are not reimbursable.

35.4 The Army agrees to submit the costs provided under Subsection 35.3 as part of its request for authorizations and appropriations in accordance with Section 34. SHAD agrees to advise DOHS and RWQCB of the status of available funds as soon as the appropriations are enacted and final program allocations are made by DOD to the Army.

35.5 DOHS and RWQCB shall maintain adequate accounting records sufficient to identify all expenses related to this Agreement. DOHS and RWQCB agree to maintain these financial records for a period of five (5) years from the termination date of the Agreement as provided for in Section 32. DOHS and RWQCB agree to provide SHAD or its designated representative reasonable access to all financial records for the purpose of audit for a period ending five (5) years from the termination date of the Agreement as provided for in Section 32.

35.6 The Parties recognize that a necessity for effectuating sufficient funding for this Agreement is the provision by DOHS and RWQCB to SHAD of timely and accurate estimates of reimbursable costs. Within thirty (30) days of the signing of this Agreement by DOHS and RWQCB, as the case may be, it shall provide the other Parties with cost estimates for all anticipated

reimbursable expenses to be incurred for the remainder of the current federal government fiscal year and the following fiscal year. At least ninety (90) days before the expiration of the second fiscal year, DOHS and RWQCB shall each provide the other Parties with cost estimates for all anticipated reimbursable expenses to be incurred during the following two fiscal years. DOHS or RWQCB, as the case may be, shall expeditiously notify the other Parties if it becomes aware that the cost estimates provided under this Subsection are no longer substantially accurate and provide in their place new cost estimates.

35.7 Section 13 notwithstanding, any dispute between SHAD and DOHS and RWQCB regarding the application of this Section or any matter this Section controls, including but not limited to allowability of expenses and caps of expenses under Subsection 35.1.3, shall be resolved in accordance with this Subsection 35.7.

35.7.1 The SHAD, DOHS, and RWQCB Project Managers shall be the primary points of contact to coordinate resolution of disputes under this Section.

35.7.2 If the SHAD, DOHS, and RWQCB Project Managers are unable to resolve a dispute, the matter shall be referred to the Commander, Sharpe Army Depot, or his designated representative, the chief of the Site Mitigation Unit, Region 1, and the Supervising Engineer for San Joaquin County as soon as practicable, but in any event within five (5) working days.

35.7.3 Should the Commander, the chief of the Site Mitigation Unit, and the Supervising Engineer be unable to resolve the dispute within ten (10) days, the matter shall be elevated to the Chief Deputy Director, Toxic

Substances Control Division, DOHS, the Deputy for the Environment, Safety, and Occupational Health, Office of the Assistant Secretary of the Army for Installations and Logistics, and the Executive Officer of RWQCB.

35.7.4 It is the intention of SHAD and DOHS and RWQCB that all disputes shall be resolved strictly in accordance with this Section; however, the use of informal dispute resolution is encouraged. In the event the Chief Deputy Director, the Deputy for the Environment, Safety, and Occupational Health, and the Executive Officer are unable to resolve a dispute, DOHS or RWQCB, as the case may be, retains all of its legal and equitable remedies to recover its costs.

36. PERMITS

36.1 The Parties recognize the under CERCLA Section 121(e)(1), 42 U.S.C. 9621(e)(1), no federal, state, or local permit shall be required for the portion of any removal or remedial action conducted entirely onsite, where such action is selected and carried out in compliance with 42 U.S.C. 9621. However, SHAD must satisfy all ARARs which would have been included in any such permit.

36.2 When SHAD proposes a response action to be conducted entirely onsite, which, in the absence of 42 U.S.C. 9621(e)(1), would require a federal, state, or local permit, SHAD, in consultation with EPA, DOHS, and RWQCB, shall include in the appropriate submittal:

36.2.1 Identification of each permit, including applicable standards and requirements, which would otherwise be required; and,

36.2.2 An explanation of how the response action will meet the stan-

dards and requirements identified in Subsection 36.2.1 above.

36.3 This Section is not intended to relieve SHAD from any and all regulatory requirements whenever it proposes a response action involving the movement of hazardous substances, pollutants, or contaminants offsite.

36.4 SHAD shall furnish the other Parties with copies of all permits obtained in implementing this Agreement. Such copies shall be appended to the appropriate submittal or quarterly progress report.

36.5 Nothing in this Section shall affect or impair the obligation of SHAD to comply with any applicable requirements of CERCLA or the Hazardous Waste Control Law, California Health and Safety Code Section 25100 et seq.

37. NATIONAL AGREEMENT ON COST REIMBURSEMENT

37.0 The Parties agree to amend this Agreement at a later date in accordance with any subsequent national resolution of the issue of cost reimbursement; provided, however, that no change shall be made to Section 35, Cost Reimbursement, without agreement of DOHS and RWQCB.

Each undersigned representative of a Party certifies that he is fully authorized to enter into the terms and conditions of this Agreement and to legally bind such Party to this Agreement.

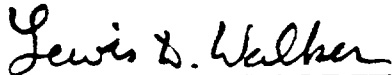
IT IS SO AGREED

FOR THE DEPARTMENT OF THE ARMY:



JOHN MICHAEL CHESSNOE
COLONEL, ORDNANCE CORPS
COMMANDER, SHARPE ARMY DEPOT

2 MARCH 1989
Date



LEWIS D. WALKER
DEPUTY FOR ENVIRONMENT, SAFETY,
AND OCCUPATIONAL HEALTH
OFFICE OF THE ASSISTANT SECRETARY
OF THE ARMY

2/28/89
Date

FOR THE STATE OF CALIFORNIA:



ALEX CUNNINGHAM
CHIEF DEPUTY DIRECTOR
TOXIC SUBSTANCES CONTROL DIVISION
CALIFORNIA DEPARTMENT OF HEALTH SERVICES

2/28/89
Date



WILLIAM H. CROOKS, EXECUTIVE OFFICER
CALIFORNIA REGIONAL
WATER QUALITY CONTROL
BOARD, CENTRAL VALLEY REGION

3-14-89
Date

FOR THE ENVIRONMENTAL PROTECTION AGENCY:



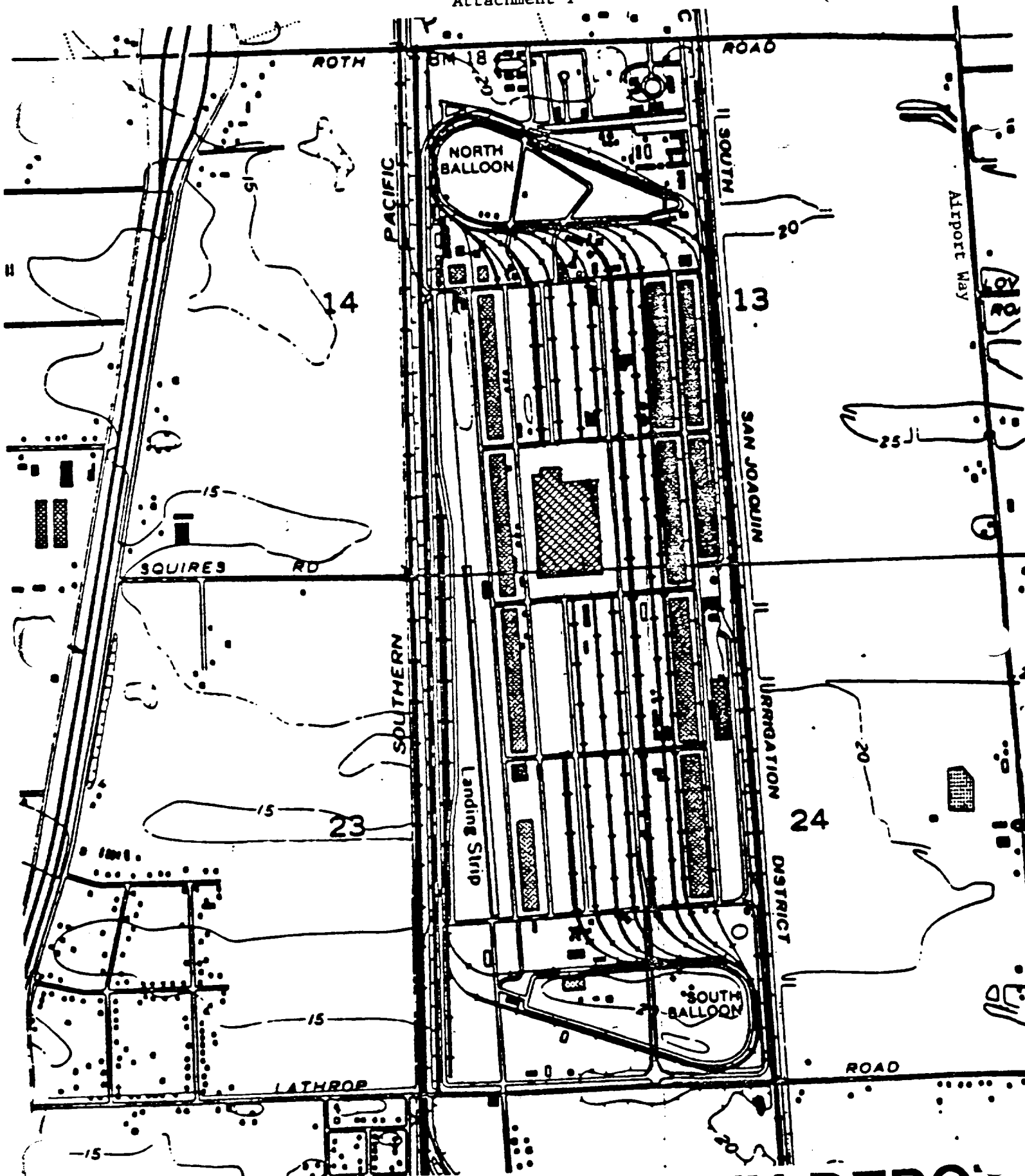
J. WINSTON PORTER
ASSISTANT ADMINISTRATOR
U.S. ENVIRONMENTAL
PROTECTION AGENCY

2/17/89
Date

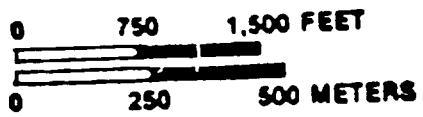


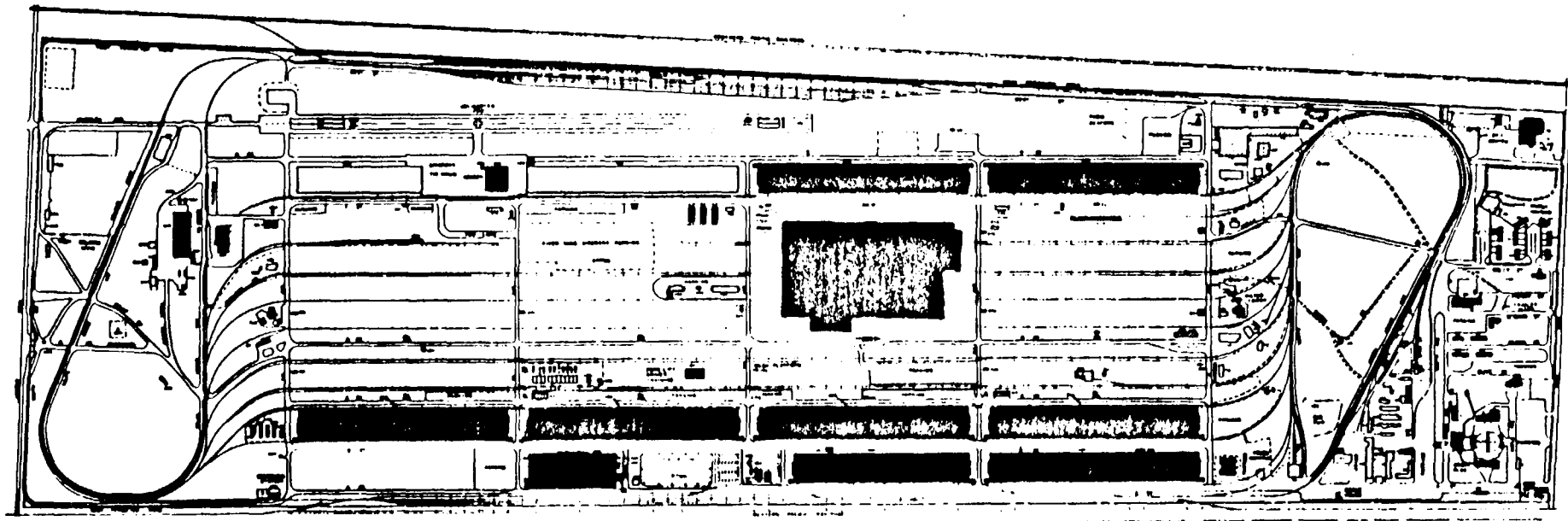
DANIEL MCGOVERN
REGIONAL ADMINISTRATOR
U.S. ENVIRONMENTAL PROTECTION
AGENCY - REGION IX

3-16-89
Date



SHARPE ARMY DEPO'T





SHARPE ARMY DEPOT, CALIFORNIA

LEGEND

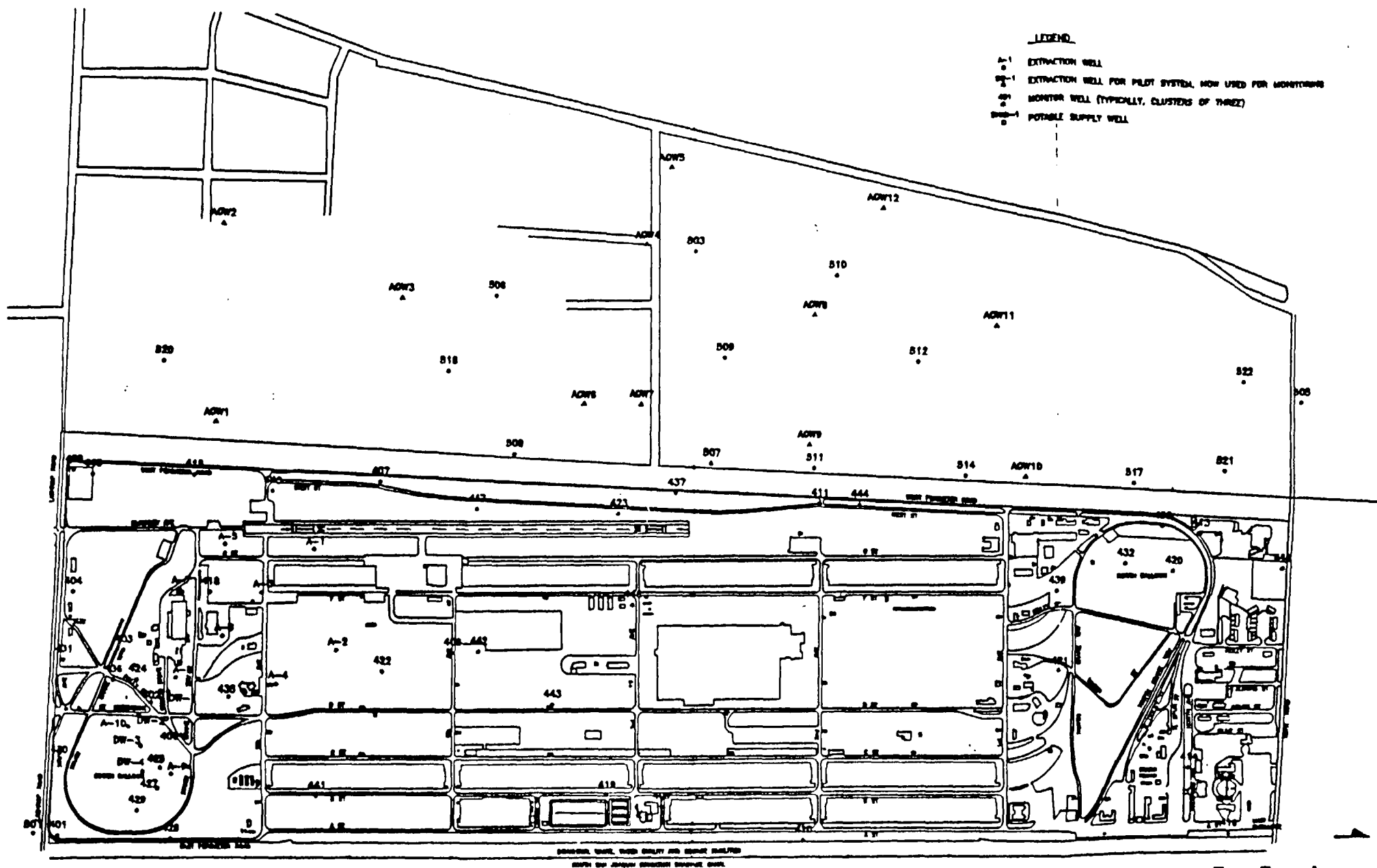
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[Symbol]	Barbed Wire
[Symbol]	Electric Fence
[Symbol]	Post and Rail
[Symbol]	Other Fencing
[Symbol]	Other



SHARPE ARMY DEPOT
CALIFORNIA

GENERAL SITE MAP

Attachment 1



**Attachment 2
Timetables and Deadlines**

SHAD agrees to conduct RI/FS pursuant to Sections 8 (Remedial Investigation), 9 (Feasibility Study), and 10 (Remedial Action Selection and Implementation) and the Attachment 3 of this Agreement and meet the following deadlines:

<u>Documents</u>	<u>Deadlines</u>	<u>Estimated¹ Dates</u>
Draft Quality Assurance Project Plan (QAPP)	August 15, 1988	Aug. 15, 1988
Initial Draft RI Report	September 01, 1988	Sep. 01, 1988
Draft Community Relations Plan	February 28, 1989	Feb. 28, 1989
Final QAPP*	April 07, 1989 (Subject to comments of DOHS and RWQCB to be submitted to SHAD before Feb. 17, 1989)	Apr. 07, 1989
Draft Work Plan (for Remaining RI/FS Work)	75 days after SHAD receives Agencies' comments on the initial draft RI report	Mar. 31, 1989
Final Community Relations Plan*	Per Consultation Section ²	July 30, 1989
Final Work Plan* (includes sampling plans)	Per Consultation Section	Aug. 31, 1989
Draft RI Report (incorporates remaining RI work specified in the Work Plan)	The Parties estimate 300 days after the work plan is finalized; actual date may be shorter depending on nature and amount of additional work; the date will be determined by the Parties at the time of Final Work Plan approval. A meeting for this purpose shall be held at the time of Final Work Plan approval.	June 30, 1990
Draft Initial Screening of Remedial Alternatives	60 days after the submittal of Draft RI Report	Aug. 31, 1990
Final RI Report*	Per Consultation Section	Nov. 30, 1990
Final Initial Screening of Remedial Alternatives*	Per Consultation Section	Jan. 31, 1991
Draft FS Report (includes Baseline Risk Assessment ³)	120 days after the Initial Screening of Remedial Alternatives becomes a final document	May 30, 1991
Final FS Report* (includes Baseline Risk Assessment)	Per Consultation Section	Oct. 31, 1991
Draft Proposed Plan (for public comment)	45 days after the FS report is finalized	Dec. 15, 1991
Final Proposed Plan* (for public comment)	The Parties estimate that the Proposed plan will be finalized 90 days after the Draft Proposed Plan is submitted. EPA, DOHS and	Mar. 15, 1992

RWQCB will endeavor to submit comments to SHAD within 30 days of receipt of the Draft Proposed Plan. SHAD will endeavor to submit the Draft Final Proposed Plan within 30 days of receipt of the Agencies's comments on the Proposed Plan. SHAD shall publish the Final Proposed Plan within 15 days after the Proposed Plan becomes a final document; SHAD shall begin public comment 5 days after the publication of the Final Proposed Plan.

Draft Record of Decision (ROD) (includes responsiveness summary, and schedules for draft remedial design, completion of construction, draft remedial action operations plan and commencement of the remedial action)	60 days after end of public comment period	June 30, 1992
Final ROD* (from SHAD with no signatures)	Per Consultation Section	Nov. 30, 1992
Final ROD approval (Approved by EPA Administrator)	60 days after the submittal of Final ROD (from SHAD with no signatures)	Jan. 31, 1993
Draft Remedial Design (includes Construction Plan)	To be determined in ROD	TBD ⁴
Final Remedial Design*	Per Consultation Section	
Completion of Construction	To be determined in ROD	TBD
Draft Remedial Action Operations Plan (includes monitoring & maintenance)	To be determined in ROD	TBD
Final Remedial Action Operations Plan*	Per Consultation Section	
Remedial Action (Start-up/Operation Starts)	To be determined in ROD	TBD

* Primary Document (subject to Dispute Resolution Procedures)

1. Dates estimated only for purposes of projecting an overall schedule; actual dates may vary depending on actual document review times of EPA, DOHS and RWQCB, actual response times of SHAD, and/or whether or not dispute resolution is invoked during finalization of a primary document. See discussion under footnote 2 for consultation clause period estimate. Estimated dates will be revised periodically, as necessary, and will be available to the public.
2. See Section 12, Consultation, of the Agreement for discussion of review time periods, response time periods, and consultation procedures. For purposes of establishing estimated dates, the standard review period of 60 days has been included for EPA, DOHS and RWQCB review of each primary document, the standard response period of 60 days has been included for SHAD's response, and the standard 30 days from submittal of the draft final primary document to finalization of the primary document has been included. Actual consultation time periods may vary depending upon the factors specified in footnote 1 above.
3. The Baseline Risk Assessment is the assessment of risk to public health and the environment if no remedial action is taken at the Site.
4. To be determined

Attachment 3
Remedial Investigation/Feasibility Study/Remedial Design/Remedial Action

I. RI/FS Tasks in Integrated RI/FS Workplan

SHAD shall address in its RI/FS Work Plan, but not necessary be limited to, the following tasks. Any Party may request modification of any task of this Attachment in writing and shall specify:

1. The reason(s) for requesting the modification,
2. A clear description of the requested modification, and
3. Timetable and deadlines affected by the requested modification.

This Attachment may be modified upon written agreement between the Project Managers of EPA, DOHS, RWQCB, and SHAD.

1.0 MANAGEMENT PLAN OBJECTIVES

- 1.1 Determine the nature and full extent of contaminants in groundwater, surface water, soil, and air,
- 1.2 Characterize the geographic and geo-hydrological condition of the Site,
- 1.3 Identify all existing and potential sources of contamination and migration pathways,
- 1.4 Identify Federal and state applicable or relevant and appropriate requirements,
- 1.5 Conduct a base wide Public Health and Environmental Evaluation based on reliable RI/FS information and data, and
- 1.6 Identify and evaluate remedial alternatives in accordance with EPA RI/FS guidance.

2.0 REMEDIAL INVESTIGATION

2.0(A) Description of Current Situation

- 2.1 Site Description
- 2.2 Site History
- 2.3 Results of previous Investigation
 - 2.3.1 Ground Water Release Characterization
 - 2.3.2 Surface Water Release Characterization
 - 2.3.3 Subsoil Release Characterization
 - 2.3.4 Air Release Characterization
 - 2.3.5 Geological Study Results
 - 2.3.6 Hydrological Study Results
 - 2.3.7 Natural Resources Damage Survey Results

2.0(B) Actual Remedial Investigation

- 2.4 SHAD shall provide the Agency for Toxic Substances and Disease Registry (ATSDR) with all necessary environmental investigation results, including that of the Remedial Investigation. The ATSDR will conduct a Health Assessment for SHAD.

2.5 Applicable or Relevant and Appropriate Requirements (Federal and State ARARs)

ARARs can be identified only on a site-specific basis. ARARs shall be identified at the following points in the remedial planning process:

- During scoping of RI/FS
- During site characterization phase
- During development of remedial alternatives in Operable Unit Feasibility Studies and the FS
- During screening of alternatives
- During detail analysis of Alternatives
- When Alternative is selected

2.5.1. Identify Ambient or Chemical-specific ARARs

2.5.2 Identify Performance, Design, or Action-specific ARARs

2.5.3 Identify Location-specific ARARs

2.6 Plans and Management

2.6.1 Quality Assurance Project Plan (QAPP)

EPA guidelines and specification for preparing an QAPP is available

2.6.1.1 Bottom of title page should include signature blocks for following approving personnel:

2.6.1.1.1 EPA Project Officer's immediate supervisor

2.6.1.1.2 EPA QA Officer

2.6.1.1.3 SHAD Project Manager

2.6.1.1.4 SHAD Responsible QA Official

2.6.1.1.5 Funding organization's Project Officer

2.6.1.1.6 Funding organization's QA Officer

2.6.1.2 Table of Contents includes:

2.6.1.2.1 Introduction

2.6.1.2.2 Listing of the 16 QAPP components

2.6.1.2.2 Listing of Appendices required to augment the QAPP

2.6.1.2.3 Listing of all individual receiving official copies of the QAPP and its revisions

2.6.1.3 Project Description

2.6.1.4 Project Organization and Responsibility

2.6.1.5 Quality Assurance Objectives for Measurement of Data

For each major parameter provide Quality Assurance Objectives for:

2.6.1.5.1 Precision

2.6.1.5.2 Accuracy

2.6.1.5.3 Completeness

2.6.1.5.4 Representativeness

2.6.1.5.5 Comparability

2.6.1.6 Sampling Procedures

2.6.1.6.1 Method of Collection

- 2.6.1.6.2 Rational for Sample Site Selection
- 2.6.1.6.3 Preparation of Sampling Equipments and containers
- 2.6.1.6.4 Type and Volume of Sample Container
- 2.6.1.6.5 Description of Decontamination Procedures
- 2.6.1.6.6 Holding Time and Preservation Method
- 2.6.1.6.7 Time Consideration for Sample Shipping
- 2.6.1.6.8 Documentation of Sampling History, Conditions & Analyses (including forms, note books ...)
- 2.6.1.7 Sample Chain of Custody Procedures
 - A. Field Sampling Operation
 - 2.6.1.7.1 Documentation of Exact Location and Consideration Associated with Sample Acquisition
 - 2.6.1.7.2 Documentation of Procedure for Preparation of Reagents
 - 2.6.1.7.3 Documentation of Method for Sample Preservation
 - 2.6.1.7.4 Labeling Techniques
 - 2.6.1.7.5 Availability of Chain Of Custody Form
 - B. Lab Operation
 - 2.6.1.7.6 Identification of Sample Custodian
 - 2.6.1.7.7 Lab Procedure for Sample Handling, Storage and Dispersement for Analysis
 - 2.6.1.7.8 Specification of Lab Sample Custody Procedures for Sample Handling, Storage and Dispersement for Analysis
- 2.6.1.8 Calibration Procedures and Frequency and information for Field Equipment and Lab Equipment:
 - 2.6.1.8.1 Major measurement parameters
 - 2.6.1.8.1.1 Pollutant Measurement System
 - 2.6.1.8.1.2 Standard Operation Procedure (SOP)
 - 2.6.1.8.1.3 Description of calibration procedures
 - 2.6.1.8.2 List frequency of re-calibration
 - 2.6.1.8.3 List calibration standards
 - 2.6.1.8.4 Where Calibration and Repairs Logged
- 2.6.1.9 Analytical Procedures
 - 2.6.1.9.1 Cite Method Name and Number
 - 2.6.1.9.2 Description of Analytical Procedure
 - 2.6.1.9.2.1 Analytes
 - 2.6.1.9.2.2 Parameter Group
 - 2.6.1.9.2.3 Method Name and Number
 - 2.6.1.9.2.4 Detection Limit
- 2.6.1.10 Data Reduction, Validation and Reporting
 - 2.6.1.10.1 Data Reduction Scheme Planned on Collected Data

- 2.6.1.10.2 Criteria Used to Validate Data Integrity During Data Collection and Reporting
- 2.6.1.10.3 Methods Used to Identify and Treat Outliers
- 2.6.1.10.4 Reporting Scheme for Collection of Raw Data
- 2.6.1.10.5 Key Individuals In this Reporting Scheme
- 2.6.1.11 Internal Quality Control Checks (both Lab & Field)
 - 2.6.1.11.1 Replicates
 - 2.6.1.11.2 Spiked Samples
 - 2.6.1.11.3 Split Samples
 - 2.6.1.11.4 Control Charts
 - 2.6.1.11.5 Blanks
 - 2.6.1.11.6 Internal Standards
 - 2.6.1.11.7 Zero and Span Gases
 - 2.6.1.11.8 Quality Control Samples
 - 2.6.1.11.9 Surrogate Samples
 - 2.6.1.11.10 Calibration Standards & Devices
 - 2.6.1.11.11 Reagent Checks
- 2.6.1.12 Performance and System Audits
 - 2.6.1.12.1 Internal Audits
 - 2.6.1.12.1.1 Description of Audits
 - 2.6.1.12.1.2 Audited by
 - 2.6.1.12.1.3 Frequency of Audits
 - 2.6.1.12.1.4 Person to Receive Audit Reports
 - 2.6.1.12.2 External Audits
 - 2.6.1.12.2.1 Description of Audits
 - 2.6.1.12.2.2 Audited by
 - 2.6.1.12.2.3 Frequency of Audits
 - 2.6.1.12.2.4 Person to Receive Audit Reports
- 2.6.1.13 Preventive Maintenance
 - 2.6.1.13.1 Schedule of Maintenance to Minimize Downtime
 - 2.6.1.13.2 Critical Spare Parts to Minimize Downtime
- 2.6.1.14 Routine Procedures Used to Assess:
 - 2.6.1.14.1 Data Precision
 - 2.6.1.14.2 Data Accuracy
- 2.6.1.15 Corrective Action
 - A. Procedures Include the Following:
 - 2.6.1.15.1 Limit for Data Acceptability beyond Which Corrective Action is Required
 - 2.6.1.15.2 Re-evaluation of Analyst's Work & Instrumentation Checks
 - 2.6.1.15.3 Corrective Action Initiator & Approver

- B. Other QA activities May Also Initiate Corrective Action:**
 - 2.6.1.15.4 Performance Audits
 - 2.6.1.15.5 System Audits
 - 2.6.1.15.6 Lab/Interfield Comparison Studies
 - 2.6.1.15.7 QA Program Conducted by Quality Management Staff (QAMS)
 - 2.6.1.16 Quality Assurance Report and Management
 - 2.6.1.16.1 Periodic Assessment of Data Quality, Precision & Completeness
 - 2.6.1.16.2 Results for Performance Audits
 - 2.6.1.16.3 Results for System Audits
 - 2.6.1.16.4 QA problems & Solutions
 - 2.6.1.16.5 Frequency of Report
- 2.6.2 Sampling Plans
 - 2.6.2.1 Objectives of the Sampling Effort
 - 2.6.2.2 Maps of All Pertinent Locations & Sampling Points
 - 2.6.2.3 Rationale for Sampling Location and Numbers of Samples
 - 2.6.2.4 Request for Analyses
 - 2.6.2.4.1 Narrative Request for Analyses
 - 2.6.2.4.2 Tabular Request for Analyses
 - 2.6.2.5 Field Methods & Procedures
 - 2.6.2.5.1 Sample Collection
 - 2.6.2.5.2 Disposal of Contaminated Materials
 - 2.6.2.5.3 Equipment Decontamination
 - 2.6.2.5.4 Sample Containers
 - 2.6.2.5.5 Sample Preservation
 - 2.6.2.5.6 Sample Shipment
 - 2.6.2.5.7 Sample Documentation
 - 2.6.2.5.8 Quality Assurance
 - 2.6.2.5.8.1 Replicates
 - 2.6.2.5.8.2 Blanks
 - 2.6.2.6 Site Safety Plan
- 2.6.3 Data Management Plan

Field sampling and analytical procedures for the acquisition & compilation of field and lab data & demonstrated activities are subject to data management procedures

 - 2.6.3.1 Document and track data, information, and results (all analytical data collected by USATHAMA and SHAD shall be reported separately using the same format and in the same report for easy reference)
 - 2.6.3.1 Field activities
 - 2.6.3.2 Sample management and tracking
 - 2.6.3.3 Document control & inventory
 - 2.6.3.2 Identify lab documentation procedures
 - 2.6.3.3 Project file requirements
 - 2.6.3.4 Project related progress

- 2.6.4 Health and Safety Plans
- 2.6.5 Community Relation Plan (CRP) Shall Provide
The Public Information On:
 - 2.6.5.1 Investigation activities
 - 2.6.5.2 Cleanup activities
 - 2.6.5.3 Public comment opportunities
 - 2.6.5.4 Cleanup Decisions

The investigations in sections 2.7 through 2.11 below should result in data of adequate technical content to characterize the site and its actual or potential hazard to public health and environment and support the development and evaluation of remedial alternatives during FS.

- 2.7 Environmental Settings
 - 2.7.1 Regional Physiography and Topography
 - 2.7.2 Regional & Site Geology
 - 2.7.2.1 Stratigraphy
 - 2.7.2.2 Soils' attenuation capacity and mechanisms
 - 2.7.2.3 Other soil properties: structure, porosity, mineralogy, grain size distribution
 - 2.7.2.4 Regional geology
 - 2.7.3 Regional & Site Hydrogeology
 - 2.7.3.1 Hydraulic testings: obtain data for the development and evaluation of alternatives in OUFS and FS
 - 2.7.3.2 Aquifer tests to determine aquifer parameters and connection between aquifers
 - 2.7.3.3 Determine depths of water tables
 - 2.7.3.4 Determine groundwater flows
 - 2.7.3.5 Define areas of recharge and discharge
 - 2.7.3.6 Vertical gradients
 - 2.7.3.7 hydraulic barriers (faults, bedrock, constant head sources)
 - 2.7.3.8 Vadose Zone monitoring: moisture content, unsaturated conductivities and relative permeabilities
 - 2.7.3.9 Regional groundwater quality
 - 2.7.3.10 flow model(s)
 - 2.7.4 Regional and site surface water quality
 - 2.7.5 Regional and site meteorology and air quality
 - 2.7.6 Regional and site surface water quality
 - 2.7.7 Regional & Site Land Use
 - 2.7.8 Regional & Site Biology
- 2.8(a) Site-specific Source Characterization Plan (efforts should begin with a survey of previous studies and other existing data, see section 2.3)
- 2.8(b) Site-specific Source Characterization Plan (efforts should begin with a survey of previous studies and other existing data, see section 2.3)

- 2.8(b).1 Groundwater migration pathway characterization (contaminant-specific)
 - 2.8(b).1.1 Vertical & horizontal extent of migration
 - 2.8(b).1.2 Rate of migration
 - 2.8(b).1.3 Groundwater monitoring/contaminants transport model(s)
 - 2.8(b).1.4 Quality assured monitoring & sampling results shall be presented in Quarterly Progress Reports
- 2.8(b).2 Contaminated surface Water Characterization (contaminant-specific)
 - 2.8(b).2.1 Route of contaminated surface water
 - 2.8(b).2.2 Location & sampling frequencies
 - 2.8(b).2.3 Sampling techniques/ methods/analysis
 - 2.8(b).2.4 Quality assured monitoring and sampling results shall be presented in Quarterly Progress Reports
- 2.8(b).3 Contaminated Surface, Subsurface Soil, and Sediment Charaterization (contaminant-specific)
 - 2.8(b).3.1 Specific Areas to be studied
 - 2.8(b).3.2 Vertical & Horizontal extent of Contamination
 - 2.8(b).3.3 Probable Quantities of Subsurface Wastes
 - 2.8(b).3.4 Rate of Vertical Migration
 - 2.8(b).3.5 Predict the Long Term Disposition of Contaminants
 - 2.8(b).3.6 Correlation Between Subsoil & Groundwater Contaminations
 - 2.8(b).3.7 Locations and Sampling Frequencies
 - 2.8(b).3.8 Sampling Techniques/Methods/ Analysis
 - 2.8(b).3.9 Quality Assured Sampling Results Shall Be Presented in the Quarterly Progress Reports
- 2.8(b).4 Determine the extent of atmospheric contamination (contaminant-specific)
 - 2.8(b).4.1 Tendency of Substances to Enter the Atmosphere
 - 2.8(b).4.2 Air monitoring program (based on information from study of contaminated surface soils
 - 2.8(b).4.3 Quality assured sampling & monitoring results shall be presented in Quarterly Progress Reports
- 2.9 RCRA/CERCLA Integration
 - 2.9.1 RCRA Facility Assessment (RFA)
 - 2.9.1.1 Areas of Concern
 - 2.9.1.2 Preliminary Review
 - 2.9.1.2.1 Gathering New Information
 - 2.9.1.2.1.1 Written Information & Documents

- 2.9.1.2.1.2 Interview Relevant Individuals
 - 2.9.1.2.1.3 Collecting Additional Information
 - 2.9.1.2.2 Evaluating New Information--
 - 2.9.1.2.2.1 Investigating Facility Waste Generation Process
 - 2.9.1.2.2.2 Identifying Solid Waste Management Units (SWMUs)
 - 2.9.1.2.2.3 Other Potential Release of Concern
 - 2.9.1.2.2.4 Evaluating the Facility's Release Potential
 - 2.9.1.2.2.5 Identifying Significant Data gaps
 - 2.9.1.2.2.6 Determining the Need for Further Action During the RFA
 - 2.9.1.2.2.6.1 Need for Sampling Visit
 - 2.9.1.2.2.6.2 Need for Removal Action
 - 2.9.1.2.2.6.3 Need for RI
 - 2.9.1.3 Conducting the Sampling Visit
 - 2.9.1.3.1 Developing Sampling Plan
 - 2.9.1.3.2 Conducting the Sampling Visit
 - 2.9.1.3.3 Analyzing and Interpreting Sampling Results
 - 2.9.1.4 Final RFA Recommendations for Further Action
 - 2.9.1.4.1 Making RFA Release Determinations
 - 2.9.1.4.2 Making Recommendations for Each SWMU or Group of SWMUs
- 2.9.2 Further Investigation of SWMUs Under CERCLA
If 2.9.1.4 above recommends any further action, which is normally a task of a RCRA Facility Investigation (RFI), then the action shall be addressed under the RI
- 2.9.3 Corrective Action of SWMUs Under CERCLA
If 2.9.2 above requires Corrective action(s) for any SWMU(s), then these corrective actions shall be addressed under CERCLA
- 2.10 Site Characterization Analysis
Analyze all site investigation results to prepare a summary to ensure the investigation data are sufficient in quality and quantity to support the FS
 - 2.10.1 Organize and present logically the relationship between site investigations for each medium.
 - 2.10.2 Develop a summary of the types and extent of contaminants
- 2.11 Supplemental Surveys and Investigations
SHAD may need to perform additional tasks in order to accomplish RI/FS objectives. Such tasks may include additional field work and studies to provide information on newly discovered contaminants, pathways of concern, and bench scale tests of possible remedial technologies.
- 2.12 Community Relation Support
This task includes but may not be limited to:
 - 2.12.1 Revisions & additions to the CRP
 - 2.12.2 Analysis of community attitudes toward proposed action(s)
 - 2.12.3 Preparation and dissemination of information
 - 2.12.3.1 News releases
 - 2.12.3.2 Fact sheets and updates
 - 2.12.3.3 Slide shows
 - 2.12.3.4 exhibits
 - 2.12.3.5 Audio & visual materials

- 2.12.4 Establishment of a Community Information Center
- 2.12.5 Arrangement for briefings, press conferences
- 2.12.6 Technical Assistant Grant support
- 2.13 Submit Quarterly Progress Reports to EPA, DOHS, and RWQCB pursuant to Section 15 (Reporting Requirements) of this Agreement
- 2.14 Final Remedial Investigation Report(s)

The RI report shall include all results from tasks 2.0(A) through 2.11 of this Attachment, interpretations of such results (including any graphical presentations), correlations of such results between the contaminated media, identification of data gaps, and a proposal for future work. If the Quality Assurance Project Plan is submitted separately (task 2.6 of this Attachment), then the RI Report need not include the Plan. The RI report shall be consistent with CERCLA, the NCP, the EPA Guidance on Conducting RIs/FSs Under CERCLA, Draft, March 1988, any subsequent revisions thereof[@], the Compendium of Superfund Field Operations Methods, and other applicable EPA guidances.

3.0 FEASIBILITY STUDY

- 3.1 Description of The Current Situation
 - 3.1.1 SHAD shall summarize the current situation based on task 2.0(A) and new data & information obtained from tasks 2.0(B) through 2.11 of this Attachment.
 - 3.1.2 Identify the actual and potential exposure pathways that should be addressed by remedial action alternatives
- 3.2 Baseline Risk Assessment (Risk Assessment for the no action alternative)

The Baseline Risk Assessment involves an ecological study and the following five steps which cover a range of complexity, quantification, and levels of effort

 - 3.2.1 STEP 1: SELECTION OF INDICATOR CHEMICALS
 - 3.2.1.1 Develop Initial List of Indicator Chemicals
 - 3.2.1.2 Select Final Indicator Chemicals
 - 3.2.2 STEP 2: ESTIMATION OF EXPOSURE POINT CONCENTRATION OF INDICATOR CHEMICALS
 - 3.2.2.1 Identify Exposure Pathways
 - 3.2.2.1.1 Chemical Release Sources & Media
 - 3.2.2.1.2 Identify and Characterize Possible Exposure Points
 - 3.2.2.1.3 Integrated Release Sources, Transport Media, Exposure Points, and Exposure Routes into Exposure Pathways
 - 3.2.2.1.4 Presence of Sensitive Human populations
 - 3.2.2.2 Estimate Exposure Point Concentrations
 - 3.2.2.2.1 Quantify Chemical Releases
 - 3.2.2.2.2 Predict Environmental Fate and Transport
 - 3.2.2.3 Compare to Requirements, Standards, and Criteria
 - 3.2.2.3.1 Compare to ARARs:
 - Maximum Contaminant Levels (MCL) & Maximum Contaminant Level Goal (MCLG)
 - National Ambient Air Quality
 - Standards (NAAQS)

- Federal Ambient Water Quality Criteria
- State Environmental Standards
- 3.2.2.3.2 Compare to Other Criteria,
 - Advisories, and Guidances
 - Proposed MCLs, MCLGs
 - Drinking Water Health Advisories
- 3.2.3 **STEP 3: ESTIMATION OF CHEMICAL INTAKES**
 - 3.2.3.1 Calculate Air Intakes
 - 3.2.3.2 Calculate Groundwater Intakes
 - 3.2.3.3 Calculate Surface Water Intakes
 - 3.2.3.4 Calculate Intakes From Other Exposure Pathways
 - 3.2.3.5 Combine Pathway-Specific Intakes to
Yield Total Oral and Total Inhalation Intakes
- 3.2.4 **STEP 4: TOXICITY ASSESSMENT**
- 3.2.5 **STEP 5: RISK CHARACTERIZATION**
 - 3.2.5.1 Noncarcinogenic Effects
 - 3.2.5.2 Potential Carcinogenic Effects
 - 3.2.5.3 Uncertainties
- 3.3 Development of Performance Goals and Analysis of Risks For Each of Remedial Alternatives
 - Perform this sub-task (3.3) for each remedial action alternatives at the alternative evaluation stage
 - 3.3.1 Re-Evaluate Indicator Chemicals
 - 3.3.2 Identify Potential Exposure Pathways
 - 3.3.3 Determine Target Concentrations at Human Exposure Points
 - 3.3.4 Estimate Target Release Rates
 - 3.3.5 Assess Chronic Risk For Noncarcinogens
 - 3.3.6 Assess Potential Short-Term Health Effects of Each of the Remedial Alternatives
- 3.4 Development of Alternative / FS Phase I
 - Alternatives should be developed concurrently with the RI site characterization, with the results of one influencing the other in an iterative fashion
 - 3.4.1 Establishment of Remedial Response Objectives Based on the Baseline Risk Assessment and ARARs identification Remedial response objectives should be developed to specify contaminants and media of interest, exposure pathways, and remediation goals that permit a range of treatment and containment alternatives to be developed.
 - 3.4.2 Identifying Volumes and Areas of Media to Which Treatment or Containment Action May be Applied
 - 3.4.3 Developing Response Actions for each Medium
 - 3.4.4 Identifying Potential Treatment Technologies
 - 3.4.5 Screening the Technologies Based on:
 - 3.4.5.1 Public Health & Environmental Impact
 - 3.4.5.2 Effectiveness
 - 3.4.5.3 Implementability
 - 3.4.5.4 Cost
 - 3.4.6 Assembling Technologies and their Associated Containments or Disposal Requirements into Alternatives
 - 3.4.7 Community Relations During FS Phase I
 - 3.4.8 Reporting and Communication During FS Phase I

- 3.5 Screening of Alternatives / FS Phase II
 - 3.5.1 Initial Screening of Alternatives Based On:
 - 3.5.1.1 Health and Environmental Protection
 - 3.5.1.2 Technical Feasibility
 - 3.5.2 Community Relation During FS Phase II
 - 3.5.3 Reporting & Communication During FS Phase II
- 3.6 Post-Screening Investigations
 - 3.6.1 Determination of Data Requirements
 - 3.6.2 Additional Site Characterization
 - 3.6.3 Treatability Study
 - 3.6.3.1 Conduct laboratory and/or bench scale studies to determine applicability of remedial technologies
 - 3.6.3.2 Analyze the technologies to determine the testing requirements
 - 3.6.3.3 Develop a testing plan:
 - 3.6.3.3.1 Testing types
 - 3.6.3.3.2 Testing goals
 - 3.6.3.3.3 Levels of efforts
 - 3.6.3.3.4 Data management & interpretation guidelines
 - 3.6.3.4 Perform tests
 - 3.6.3.5 Evaluation of testing results
 - 3.6.3.6 Scale-up those technologies based on testing results
 - 3.6.4 Application of Results
 - 3.6.5 Community Relations During the Post-Screening Investigations
 - 3.6.6 Reporting and Communication During Post-Screening Investigations
- 3.7 Detail Analysis of the Remaining Alternatives / FS Phase III
 - 3.7.1 Health Information/Environmental Effects
 - 3.7.2 Technical Aspects of the Remedial Alternatives
 - 3.7.3 Evaluation Criteria for Detail Analysis of Alternatives
 - 3.7.3.1 Short-term Effectiveness
 - 3.7.3.2 Long-term Effectiveness and Permanence
 - 3.7.3.3 Reduction of Toxicity, Mobility or Volume
 - 3.7.3.4 Implementability
 - 3.7.3.5 Cost
 - 3.7.3.6 Compliance with ARARs
 - 3.7.3.7 Overall Protection of Human Health & the Environment
 - 3.7.3.8 State Acceptance
 - 3.7.3.9 Community Acceptance
 - 3.7.4 Community Relations During FS Phase III
 - 3.7.5 Reporting & Communication During FS Phase III
- 3.8 Recommended Remedial Alternatives
- 3.9 Submit Quarterly Progress Reports to EPA, DOHS, and RWQCB pursuant to Section 15 (Reporting Requirements) of this Agreement
- 3.10 Final Feasibility Study Report(s)

The report shall include the results of tasks from 3.1 through 3.8 of this Attachment, The FS report shall be consistent with CERCLA, the NCP, the EPA Guidance on Conducting RIs/FSs Under CERCLA, Draft, March 1988, any subsequent revisions thereof, the Superfund Public Health Evaluation Manual, EPA, Draft, January 1986, any subsequent revisions thereof, the Superfund Exposure Manual, EPA, Draft, April 1988, any revisions thereof, the Compendium of Superfund Field Operations Methods, and other applicable EPA guidances.

II. Development of Proposed Plan for Remedial Action

The Proposed Plan shall be consistent with CERCLA, the NCP, and other applicable EPA guidances.

III. Public Review Comment

SHAD shall provide the public the opportunities of review and comment on the RI and FS reports and the Remedial Action Proposed Plan(s) in a manner consistent with Section 30 (Public Participation) of this Agreement.

IV. Responsiveness Summary

SHAD shall prepare a Responsiveness Summary (part of the Record of Decision as specified in Attachment 2 of this Agreement) after the public comment period in a manner consistent with CERCLA, Section 30 (Public Participation) of this Agreement, the EPA Community Relations in Superfund Guidance, Draft, March 1988, any revisions thereof[@], the NCP, and other applicable EPA guidances.

V. Incorporate Appropriate Public Comments

SHAD shall incorporate the appropriate public comment(s) in its Remedial Action Proposed Plan(s).

VI. Prepare Record of Decision

SHAD shall prepare a Record of Decision as specified in Attachment 2 of this Agreement in a manner consistent with CERCLA, the NCP, Guidance on Preparing Superfund Decision Documents: The Proposed Plan and Record of Decision, EPA, Draft, March 1988, any subsequent revisions thereof[@], other EPA applicable guidances. SHAD shall document the final remedy(ies) selected for the site. The ROD shall be based on the material contained within the Administrative Record. The ROD shall include a Responsiveness Summary which addresses major comments, concerns, criticisms, or new data raised during the Public Comment Period on the Remedial Action Proposed Plan(s), including those that may lead to significant changes from the proposal(s) contained in the Proposed Remedial Action Plan. The ROD should also include schedules for remedial design, construction, remedial operations plan, and commencement of remedial action(s) as specified in Attachment 2.

VII. Remedial Design

SHAD shall prepare a Remedial Design Report which provides detailed engineering design and specifications which will allow other Parties to review and to ensure the selected remedy(ies) is(are) fully considered by SHAD in the Design.

VIII. Remedial Action Operations Plan

SHAD shall document in the Remedial Action Operations Plan all the standard operation procedures for conducting remedial action operation.

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Such revisions will be provided to SHAD prior to submittal of the subject deliverable